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TGACGACCTC	ATCCCTTGACC	AAGGTGACAT	TGTAGACTCT	GTTGGCCTTG	CTGCTGAATG	2220
TGCTCTTAC	CTTCATTTG	TTATAGTGGT	AACGAGTGAT	GGCAATTCCG	TTGGTTACAT	2280
TAACATCGT	GAGAACATTTG	GTCAAACTTC	CAGCATGCCT	AACATCACCA	GAAGTTCGAT	2340
CCACAAAT	GCCTGCCACT	CCAGCGACTC	TACCAAGTG	CTTGACATTTG	TTGATATCAC	2400
CTTCAGACA	GCTATCTTGG	ATCTGTGCAT	CTCGGTCTAC	TAGGCTGCA	AGTCCACCCA	2460
CAGTCTGATC	TGAAGTATTT	GTGTTAGATG	AAATGGCTAC	TGTGCTTTT	GACTTAGTAA	2520
GTAAAGCCTT	GTCACTGTTC	AAATGACCGA	CCATACCACC	GATATTGTAG	GCAGCAGTCG	2580
TTTCATAAAT	GTTGATAATT	CTTCCCTTGA	AACTGTCTTC	TGTGATGCTT	GAATGCTCAG	2640
CCTTAGCCAG	CAAAACCACC	ATACCACGTT	CACCAGCCAG	AACACCATCG	ACGTGAACCT	2700
GCTTAATTTT	TGTGTTATTC	TGAGCTTCAT	TTGCCAGTGA	ACCGATATCA	TCTTCCCTG	2760
AAATAGCAAC	ATTTTTTAGA	CTCAGTTTTT	CTACTGTAGC	ACCACTCAAG	TTTTCAAJCA	2820
GAGTTTTTTT	CAAAATTAAG	ATAGCATAAT	TCTTGCCATC	TTTTTCACCG	ATTAAACGAC	2880
CAGTAAAGGT	GTCTTTGATA	TAGGATCTTT	CATCAGGACC	AAGCTCCACT	TGCTTAGCAT	2940
TCAGGCTGGC	CGCTAAATGA	TAGGTTCCAG	AGGGATTTTG	GTTTATAGCT	TTGACCAGAT	3000
TACTAAAGGA	AGTAAAGTTT	GTGTTTCTT	CTGTTCCTTT	CTTAGCTAGA	TAGAAGGTAA	3060
AATATCTTTT	ATATCTGCTT	TCTATCTCTT	GCTGAAGCTT	CTCTACTTTT	GCTGTGATTT	3120
TATAAAGGAT	TTTATCATTT	TTTCTTTCTT	CTGATATTGA	TGCTACTGGT	AGGTATACAT	3180
CTTTGAATGA	AGAAGATTTT	ACTTTAACAA	AGTAGCTATT	TGGATTGCTT	GGAACCTTGT	3240
CTAACGAAAT	GTGTTGTTTA	TAAGTACCAT	TTGACAAACT	GTATAACTCT	AGGTCCGAAA	3300
CATTTTCTAA	TTCAAGTGTT	TTCTCTGGTT	CTTCTACCTT	TTTATCAGGG	TCTAGTTTAT	3360
TTTCTTGTTT	AATTTCTTCG	TTTCCATTTG	AATTGGATGT	GTTPGATTCG	GTTGAAACAT	3420
CCTCAGTTGA	ATTTCCGTTT	GATGGTTCTG	GTCTGTGTTG	TCCATTCTCT	GATGTTGTAT	3480
TACCTGAATT	TTCTGGTTTT	GTTCGAGTTC	CGTTTTTTTC	TGGTTGATTT	GATCTTCAA	3540
CTGGTGTTTT	TGAATCACA	GTTTATTGG	ATACTTCTCC	AGTATTTTCG	TTAGCTATTT	3600
TCCCAGAGTT	TGTTTGTGTT	TCTTCTGCAG	GTTPGAAC TG	TTTTTCTGTT	TCTTGATTTG	3660
AGGTACCTTC	TACTGTGCTT	TCATTTGGAT	TTACTGGAAC	TTCTTCTACA	GTTPTTTCTG	3720
AATTTTCTAT	TTTAGAGTCA	TTATGTTCTG	GTTTATTTGA	TTCTCCAAC	GAGGTGTGCG	3780
AATCACTAGG	ATTACTGGAC	ACTTCCCCAG	TATTTTGTCT	AGATGATCT	GGTATACCT	3840
TCTCTGAATT	CGTGTGTGAT	TCTTCTGCAG	GTTPGAAC TG	ATTTTCTGCT	TCTTGAATTTG	3900
AGGTTCTCTC	TGTAGTACCT	TCATTTGGAT	TTACTGGTGT	TTCTTCTGTT	GGTTTACCTG	3960

GAACCTCTTC AGTPTTCTT GGACCTCTT CTPTGCTCT CTCAACCGA GTTTCAGGTT	4020
TTACTGTCTC AATATATACC TTATATCTG GAAGCGGTGC TACCTGCTCT GGTTCACCTT	4080
TATCACTTAC CACAGTATCT GCGGACTCTG GTTGAACCTC AGTCTCACCT TTGTCGGTCA	4140
CAACTGCTTC GGGTAATGTA GGTGAACCTT CTGGTTGCCC TTGTGCACTT ACTACAGCTT	4200
CGGGCAACTC AGGCTGAATT GCGGGTTCAA CAATAGCTCC AGACTGTACG TCCCTATGTT	4260
CTACACCAGT CTCAAGTTGT TCCTTTATAA CTTGAGTTTT TTAGTACCT TTTTCGACTA	4320
TTCTTGAGCT AGGCGCAGTC GTTGAAGTTG AAACAATTC TCGCGAAACT TCCTCCTTGT	4380
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TTACAGTCC TTAGCTAAA TCAGGATTTT CTGAATTC TTCTTGAAA TCTATTTTTC	4500
TCCTCATAGT TTCTTCACGA TATAAGAGTT CAGGTTGTT CAATTGACCT GATAAACTT	4560
CATCCTGTGG ATTAAATGTA TTTACCCGAG TCCTTTCTTT TGGAGAAATC TTCTCCTCTT	4620
TCCTCGTTTC TAGATTCTA TGTTCGGCTA ATTGTTCTTG AGAATCTGAA GATTGTTCT	4680
CTTCTTTTCT TGGATTGATT AATTCAGTAG AGAAAGGTTT TTCAACTACT TGAATTTCTG	4740
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CTACAAAATT CGGTGAACA TTATAATCCA CCTTTTGTG TTTGTAGGA GTGGCAACTG	4860
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TATAAGTGA ACCTGAAATC TCCTTAGGAA GAGGTAATTT TTCTCCAGAG GTCAATTCAT	4980
AGTCCGTATT GTAAATTAGC AAAAGATGAT TTCTAAAGC ATGGACTGAA ACTAAGACAC	5040
CATTTCTTAT CCCTGCAACC AATACTAAT GTAATACCGT TTTATTTCTA ACCTTTTCTC	5100
TGGAACAGC AAAAATTAAA ATTCCCATAG CAGCTAAGCT AGCACCAGCA ACTAGGGCTT	5160
GCCTCTCATT CTGCTTCCA GTATTTGGCA ATTCGCCAG TTGATTTTGA GAATTTAACT	5220
TATAAACAG ATAATAAGTT TCATCATCAT TCTCCACGTA TGTGGAAFA TCATAGACAA	5280
GTGCTTTCTT TTCTCTGAT GATAGCTCTG AATCTGCCAC ATATTTATAG TGAATCCCG	5340
CAGTTTCTTG AGCATCCACA GATGAAGTAG CTAATACAGA CATAAAAAAT AAACCTGAAA	5400
TCGTTGCAGA TACAAGTCTT ACTGATAATT TTCTAAATGA AAAACGCTCT TGTTTTTCAC	5460
CAAAATACCT TTCCATTATT CCTCCTTGAA ATAAATTTA TATATGTTAC AAAGACCTTT	5520
ATTATCTTAG TGTATTTACT ATTATCTATA GAAAGGAGC TATACCTTAA TTATACTCTT	5580
AATTTACAAA AAAGCTTAAA AATGAGATG CGCTTTTATA CTTTGTTTTA TATTATTTGG	5640
AGGTACAAFA ACACCTACCA TGAATTTTAC ACGTAGGTG TTACTCATAT CACTAATCGT	5700

300		
TCTAAAAATG GTTIGAGGCA GTTGAGGAGA ATTCTCTCTA TCCAGCTTCC TTGTCGTGAT	5760	
GAGCGATGGT CTTCCTGCAG GCTTTTTTTT AGAAAAATCTC GGACTTGTTC TGGTGCGATT	5820	
TCAAATTCAA AGGCTTTTCAT TTATAGAAA AAGTCGATGA GATGATCTGA CAGGTATTCA	5880	
GTTGAAAAGG GTACTTCACC ACTTTTTCTA TATCTTAATA AGAGTCTAGA AAATCGAGCT	5940	
TTTTCTTCAG GAAGCTCAGC AAAATAGGAA TTGAGGATCC AAGTCTGCTT CTGTTTTCTT	6000	
TCAATTGAGT CCTGACTGCG AATTCGTGCG TCTTTTTCCA GCTCTTTTGT GTATTTTGTG	6060	
GCCTTGATAG CTCGTCTGCG TCTATTTTTA CCAAAAAGAA TTTTTTCCCA CTTCGTTCTT	6120	
TCTTGAGTCA GGGTCTCTGT AAAGCCAAAG TAATCTTGAT AAGCAAGTCT TCGGGTCCOC	6180	
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TTCTCTGCCT GGATACGGAG TTCTTGTTGCG TAGTCAMTTT TCTCCTTGCC TAGCTTGACA	6300	
AGGTAGAGTT GGTCTATCCGA TTTCCTCAAGT AAAAAGGGTT TGATACACTT TTCAAGGACT	6360	
TCTTCCATCC GAGCCTTTTT CTTTGGTTCC GCTTGGTCC AACTTCTCC CTGAAGAGCT	6420	
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ACACCTTTTT CCCAGAGCCA TTTTAGAAGT CGCTCGTCAA AGTACTTTTT ATTGACCTTG	6540	
ATTTTTTCTT TTTTCTGAGC TTTTCTGGTT AGATTTTCAA CCTTCTGAG CAGTTTTTCT	6600	
TCCTCTTCCA ATTGCTGGTC AAGGGACAAAT CGATGAAAT GACGAACACA GTGCTACCA	6660	
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GATTTTCTAA CTGGAAGTGT CATGAGGTCT CCTTCTAAT ACTCAATAAA AATCAAAGAG	6900	
CAAAC TAGAA AGCTAGCCGC AATCAGCTCA AAACACTGTT TTGAGTTGT AGATAGAACT	6960	
GACGAAGTCA GCTCAAAACA CTGTTTTGAG GTTGTGGATA GAACTGACGA AGTCAGTAAC	7020	
CATATATACA GCAAGGCGAA GCTGACGTGG TTGAGAGAGA TTTTCAAAGA GTATAAGTTA	7080	
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CCCATTCTTG GCTGCTGGGT ATTCTTTGGA TTCCAGCTTT TCACGAGAAC CCTTGCCGAC	8040
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ATCTTGATCC ATATTGAGGA TAAAGACGTA AGGAAACTCC AGCCCTTTAC TCTTGTGGAT	8340
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ACGTGCTAGC TCATCTCAT CAAACCAAAA CATTGGAGAC TTCATAAGGG CAACCAAGGC	8820
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GCCCTCTGTC	GGATTTTGGC	CATAGCGTTC	GAATTTCTCA	TTGAAAAATCT	GCGGGTCGTC	9360
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GACTTCATGG	AAGCGCTCCT	GATAAGACTC	ACGAATCTGT	GGGAAATCTC	CTAAAACTC	9540
AATGGTGTA	TGGCTGATAT	CAGCGAATTC	GAAGCAATTT	TCCTGTGCTT	TTCTCTGAGC	9600
ATAAGCCTCT	ACAAAAATCG	TCATGAAAGA	TTGGAAGGTT	TTAGCTAGTT	TCCAAGTGTC	9660
TCCATGATAA	CGTTCTTGAT	AGTCGAGAAT	CGCTATCTGG	TCTGATAAAT	GTCTAGTATT	9720
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CGGCTGGCAT	TAGTCAGAGC	TCGACCGTTT	TTCTCCTTAG	AGATGGCGAC	AACACGCGCA	9840
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GCCAACTGCC	GACCAAGTG	TGTTTGTAGG	TGCACATCAT	CTGTTCTCTG	GAITTTCTTG	10440
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TGATGGCGAA	CCGGCTGCTT	AAAATCTTCT	CAGCAGCTTT	CTTGTAAGA	TAGGCATTGT	10980
AGTCCAGTAG	GAGCTGAAT	TCTTCATCTG	TCAGTTGATT	AGCCTTGTTT	TTGTTATAAA	11040

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 GATAGGTTGG TAACTGAGAA TTGAGCCCAT TAAAGAAATG AGGAACTGG AACTGACTCA 11280
 GACTGGATTG GTAGCTACT ACTCTACTCG CTCCTATTAGC TTTCAAACGG TCAATCCGGT 11340
 CCACCTTGCC TGGTACAAAG ACACTGCGTC CATTCCTCAA TTGAATAAAG GCTTGGTCTT 11400
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 GTCCTTGTGT ATTCATCTC TTCTCTCTCC GCCTAAATCC AAAATGGATC AACTCTTGAA 12060
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CATCAATATC	AGACTGACTG	AGGTCAGTAT	ACAAATCAAGT
12840	TCTAAGAAGA	TTAATCAAAAT	
CCTCCTGAGC	AAAACGGTAA	CGTTTAAAG	CTAAAATAGA
12900	CTCGACAAC	TGAGTCAAGG	
GATGATGAGC	CATGGCTTCG	CTTCTACCAA	GATAAAAAGG
12960	AATCTGATAC	TGGTCAAAAA	
TGGTTTTGAG	AGMTAACTGG	TAAGAAGCTA	CATCCCCCAA
13020	GAGAATACGA	AAATGCTTGT	
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13080	ACGGGCTACT	AGCTCCAAT	
CTCTCTTTTG	CGTCAAAACAA	GACCGAGATT	GTAAAATTTTC
13140	ACGTCCTTTC	TCATCGACAT	
CCAAAGCGAG	TTCTGAAAAG	TCATAAGAAG	ACTCCAACAA
13200	ACGAGAGGCC	TTCTCAAAAC	
TATCCATCTT	CTCATGAGTT	TGAGAACAGT	CTTGAGCAGG
13260	CGTTTGGTAT	TTAGAAGCCA	
GATGATGGAG	AAATTTTACG	CTGGCTTGGT	AGAGATTGCC
13320	CTCGCTAAAA	GGACTGGTAT	
AGGCTTTCTT	ACTAGCATAA	GCCCCGATAA	CAATCTCAAC
13380	ACCTTTGCCG	TGAAGTAAGT	
CCACAACCCG	CTCTCTCTCA	GCAGAAAAAC	GAGTAAGCCG
13440	GTCAATGACC	AAGCGATTTT	
GATTAATAATC	ACTACTTACC	TTGTCAATCT	CAATAGCCTC
13500	AATCAAAATG	GACAACCTGAC	
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13560	TTTCTCAAAA	ATCAAGAGTA	
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13620	CAAAAACTC	ATCTGAGATT	
TGGTCATCTC	ATGGTAAAGC	TCAATTAAGT	GCTGGATCAA
13680	TTGAGGATCC	TGCTTAATAG	
CGCCATTAAC	ACGCAAGTCC	TTGGGATCGA	GTTCCGCAAG
13740	GCATTGTGAA	AAGGCCAACC	
CAAGACCGAT	ATCTCAAGA	GTAATTTTAG	CTGTAAATC
13800	ATTCAGACC	AGATAGCGAG	
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13860	CTGCTGGGAC	AAGTATTCCA	
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13920	AATGTAGAAG	ACCCOCTTGC	
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13980	TGTCAAAGAA	GTCCGAATAT	
CAGTATAAAG	TAATTTCAIC	TCAGCCTCGT	TGGAATTTTT
14040	CATCACCCCTA	TATTATACCA	
TGATTAGCCT	CGTAAATCTG	TTAAAATATT	TAGGCCATCC
14100	TTTCTTTTCT	TCATCATCTG	
CTAATCTTA	AATACTTAGC	TTTACTTGTA	TTAGATAGAA
14160	TAAGTCTGGC	TACTGAAAAT	
CACATAATA	AAAAGCCTCG	GTAACAAGGC	TTTGAGTTTT
14220	ATGATTGTTT	CTTAGGTACG	
GAATACACTT	CAATGTGTG	TCCCAGTATC	TTAATGTGCA
14280	CTGGTAGATT	GTCGTATTTA	
TGCGCATCAA	CATCGACTC	TAATTCGATA	TCAGAAAGAG
14340	TTTTAATATT	ACOTGCCCTTG	
ATATATTCAA	TATTTCTGAT	AGAAATGATT	AACTATAGTA
14400	AATTGAAACT	ATAATAGTAC	
ACCGTGGATG	CTAAATATT	TCTAGAANTT	AAITTGATTT
14460	CCCTAATCAA	GCTATTCCGT	
TCTTATTTCA	ATCTACTATA	ATAAAATGAA	CCAAAAATAG
14520	TACACAATGT	GGTATAATCT	
TCTTATGGCA	TATTCAATAG	ATTTTCGTAA	AAAAGTTCTC
14580	TCTTATTGTG	ACGCAACAGG	

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TAGTATAACA GAAGCATCAC AGCTTTTCCA AATCTCAGGT AATACCATTT ATGGCTGGT	14640
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TCGATACCTA TTTTATCGA GAATATGCTG GCTCATTAAA AGGTCAGTTA ATAAGAGGCA	15000
AAGTATCTGG AAGAAGATAT CAGAGGATTT CTTTGGTTGC AGGTCTAACA AATGGTGAAT	15060
TAATCGCTCC AATGACTTAC GAAGAGACGA TGACGAGOGA CTTTTTGAA GCTTGGTTTC	15120
AGAAGTTTCT CTACCAACA TTAACCACAC CATCGGTTAT TATAGTAAAA TGAATAAGA	15180
ATAGGGGGGG GGGGGAGGG GGGGGAGGG AGA	15213

(2) INFORMATION FOR SEQ ID NO: 27:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 6004 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 27:

TTATTACCTG AAACATFAAA TTTAATTGGA CATCCGGTTA TCAATTTTAT AATATCATCA	60
AGATTTTAT TATCTGATTC AGGAATTTTA TCTGATATAA CAACACCATT TTCAAGATAG	120
TTCAATTAAT TATTTGATTC ACTAACATTA GTGTTTGAT CTCACATCAG CCAAAAAATA	180
TGGTTATCGG AATCTAAATA CGATGAGTTT AAAATATTAT TACAATTTAT TTGATTTGCT	240
CCACCAGGAA TATATCTCAC TACTAAATTC TGTTTAAGAT TCTCACTACC TGAATGAGTG	300
ATAACAAACT CTAGAAATA TTTAGCTAGT CTATCTTCAA CATAAATCAT CTTCTAGAA	360
TGATACACAT CACCTAATTC AAAAAATGCA TCTGATAAT CAATATTTTC AATAACATCT	420
ACCTTTTCTC CGTTTTTCAC TAAAAATTTC ACGGCTTCTC TAGGAAAAATC TTTTATAAGT	480
TGTGTAGAT GTGTAGTAT AATAATTGTA TGTTTTTAT TTAACACTC TTGAAGTAAA	540
AACCTTTTAA ATTTATAGAT TGCACTCGGA TGAAGTGAGA TTTCAAGTTC ATCTATTAA	600
ATTAATGAAT TTGATTGCGC ATTTACTATA TCATTTACTA AAAAAATAAT TCTAGCCTCA	660
CCTGTTCTCG CAAAGCCTC GGAATATTCT TTTCAGATT TTTTCATCCA AATAGTTTTC	720

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GAAGCTTTTA TATCATCACC TTTTGAATAC AACTTATCTG TTA AAAATTGG AATGTCGTGA	780
TAAGATTTCAT CCATTATTTC ACTAATAATT TCACAACTT TATCATCAAC TTFAACATTA	840
TCTATAACCA TTCTCTTTCT ATAACGCCGA TAGCTACTTG TATTATTCTT TAAAATATCA	900
GCAACTGGCT TAGATCGTAA TCTTATAAAA TCTTGTTTAC TACGTTGAGT AGAAATTTTT	960
TTAAAAATTAT AGTGATGAAA AAATAAATCA AAGCAGAAA CATATTCTTT ACAATCACAA	1020
AAGACAAACAT TTTTTC AAT GCCATCCCAT CTGTCGTGCG AAGAACTTCC AATATATTTA	1080
TTTTTGGGTA ATCTTTCCAT CTCATATTGT TTTTCAGGAG CATATGGTTC CCAATAATCT	1140
AATCTCTTTT TTGTTCCAGA ACGGCTTTTA AGAACTTCTA CATTTCTAGA AGCTTTAATG	1200
TTATAATATG AATAGATTAA ACATTGTTTC CCATCCACTT CATCTATTGG ATCAACATTT	1260
GTACTAAACC AATATTTCAGA CACACTTTTA TTGGCTGGAG AACCATATAA AGCTTGTAAA	1320
ATTGAAGTTT TATTTACTCC ATATCTATTA CAGACACCTC AGGATTATTT AACTTATAAG	1380
TTTTTAACAGC TACGGAATCA ATTTCAACAG CAACTTGAA C ATCTATGCTT GATTTTTTAA	1440
GGCACTTGT AGTGCCACCT GCACCGTTAA ATAAATCAAT AGCAACAATT TTCCCCATAG	1500
TATCTTCCCTA AAGTTTCTCC TTTTATTAT AACATTATCA AATGTAAAAC CCAACCOGAT	1560
AGGGTTAGGT TTTTAAACAT ATTTCAACAA CTTCCTCATC TCATCAATAC GTGCGACGGT	1620
CGCGTCATAT TTAGCTTGGT AGTCAGCTTG TTGTCGCAAT TCCTTTTGGG CGAAGTCTGG	1680
TTTGCGCTTG GCTACGAAGC GTTCGTTAGA GAGTTTCTTA CCAACCATGT CCAGTTCTTT	1740
TTGCCATTTA GCAAGTTCTT TGTGAGAGCG GGCCAGTTCT TCTTCAACAT TGAGGAGATC	1800
GGCCAGTGGC AGGTAGATT TTGCTCTGT GTGACACTT GACATAGCCA GTTCAGGTGC	1860
AGGGATGOTT GATGCGATTT CCAAGTGTTC TGGATTGTGA AAGCGTTTGA TATAGTTGAC	1920
ATTGCTGTGA AAGAAGGCTT CCAAGTCGCT ATCGCTTGTC TTAACAAGGA TGGTGATAGG	1980
CTTGCTTGGT GCTACATTTA CTTCGCAAGC CGCATTTCCG ACAGCAAGAA TCAAGTCTTT	2040
GAGACTTTCC ACACCAAGTGT GAGCCGCAAG GTCTTCAAAG GCTAGATTAA CAGTTGGGTA	2100
TGCAGCTGTC ACGATAGAAC CTTCGTGAGT TTGTCCAAG ATTTCCTCTG TCACGAATGG	2160
CATGATTGGG TGAAGGAGAC GAAGGATCTT GTCCACGCTA TAGAGGAGAA CAGATCGAGT	2220
AATGACCTTA TGTCTCTCAT TGTGCTGTGA TAGAACTTC TTGGTCAACT CAACATACCA	2280
GTTCGCAAA TCTTCCGAGA TGAAGTTGTA AAGGATATGA CCAGCCACAC CAAATCGAA	2340
CTTATCAAAG TTTTCAGTAA CTTTTC AAT GGTTCGTTG AGATTGTGGA GAATCCAGCG	2400
GTCCGTCACA TTACCAAGCT CACCTGTTGC AACTTTTGTG ACATTGTGAT GCGCCACATC	2460
CAGCGTCAA CCTTCATTGT TCATGAGGAT ATAGCGAGAA ATGTTCCAAA TTTTGTAAAT	2520

AAAGTTCCAT GAAGCATCCA TTTTCTCGTA AGAGAAACGA ACGTCTTGAC CTGCTGCCGA	2580
ACCGTTTGA AGGAACCAAC GAAGGGCATC AGCACCGTAT TTCTCGATGA CATCCATRG	2640
GTCAATCCCG TTACCGAGAG ATTTAGACAT CTTCGCTCCT TGCTCGTCAC GGATGAGACC	2700
GTGGATAAGC ACGTTTGA ATGGCTGAGC ACCAGTAAT TCCAAGGACT GGAAGATCAT	2760
ACGAGACACC CAGAAGAAGA TGATCTGTA ACCTGTTACC AAGGTTGAAG TTGGGAATA	2820
ACGTTTAAAG TCTTCTGAGT CGACTTCAGG CCAGCCCATG GTTGAAATG GCCAGAGGCG	2880
AGAACTGAAC CAAGTATCCA AGACGTCTTC GTCTCGAGTC CATCCGTCAC CTTCGGAGC	2940
TTCTTCGCGC ACATACATTT CACCATCAGC ATGTGACCAG GCAGGGATTT GGTGACCCCA	3000
CCAAAGCTGA CGAGAGATAA CCGAGTCGTG GACATTTTCC ATCCATTGAA GGAAGGTATC	3060
GTGAAACGA GGTGGGTAGA ATTGCACCTT GTCTCTGTGT TCTTGTTAG CAATGCCGTT	3120
CTTAGCCAA TGGTCCATCT TGACGAACCA TTGAGTAGAC AAGCGTGGCT CAATACGAC	3180
ACCTGTACGT TCTGAGTGAC CAACACTGTG GACACGTTTT TCGATTTTGA CAAGGGCACC	3240
GATTTCTTCC AACTAGCAA CGACTGCCTT ACGAGCTTCA AAACGATCCA TGCTGAATA	3300
TTCAAGGCA AGCTCATICA TAGTTCGGTC GTGCTTCATG ACGTTGACTT GTGGCAAGTT	3360
ATGACGTTGG CCAACCAAGA AGTCATTTGG ATCGTGGCA GGTGTGATT TCACGACACC	3420
AGTACCAAGC TCAGGATCTG CGTCTCATC TCCAACGATT GGGATGAGTT TATTAGCGAT	3480
TGGAAGGATG ACGTTTTTAC CAATCAAGTC CTGTAGCGC GGTCTTCTG GATTAAACCG	3540
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ACCATCTTCC AGCATGTAAT TCATGTGTA GAAGGCACCT TCTACATCCT TGTGAATCAC	3660
CTCAATATCA GAAAGGGCTG TCGAGCTGC TGGTCCCAG TTGATGATAA ACTCACCAAG	3720
ATGATGCCAG CCTTTCTTGT AAAGGTTTAC AAAGACCTTA CGAACAGCTT TTGACAAACC	3780
TTGATCAAGA GTGAAACGCT CACGAGAATA GTCTACAGAA AGCCCCATCT TGCCCCATTG	3840
TTCTGTGATG GTAGTGGCAT ATTGCTCTTT CCATTCACAG ACCTTCGTCA AGAAAGCATC	3900
ACGACCTAGG TCATAACGGC TAATACCCCT ACCACGTAAG CGCTCTCAA CCTTAGCCTG	3960
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TTTTTGACGG ATGATGATAT CCTGCAAGT CGTATCCCAA GCGTGACCAA GGTGAAGTTT	4080
CCCAGTTACG TTTGCTGGTG GAATCAAGAT TGAATAGGC TTAGCCTTTT GATCGCCTGA	4140
AGGCTTGAAG ACATCCGATC CAAGCCATTT TTGGTAACGA CCAGCCTCAA CCTCGCTGG	4200
ATTGTATTTA GGTGAAAGTT CTTTAGACAT GTGTGTGTCC TTCTCTATT TTGTTTATTT	4260

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TATTTTGAAT	TTGCTTAGCA	GCTTCTCTCG	CAGACAAATT	CGTATTATTT	ATTTTAAAGT	4320
AGTGTGCAAA	CTCAATCGGT	TGATGTGGG	AATTTAATFG	AAGTGTTTCA	CGGTCCTCTA	4380
AAATTTCTCT	TTGAGATACC	TCAATATGTC	GTTTTAAGGG	TTTGTCCTTT	AATCGATCTT	4440
CGGTGCGATT	TGCGGTATG	CACCTCTCAA	GACTTGTTTC	CAATTCACAA	AACAGAATCT	4500
CTTGATGAAA	GTTATCCAA	AAATCCTGAA	TTTGCTTTAA	ATACATCAGC	TGGTACTGAT	4560
TTGAAAAATC	AATTACGTCT	GTTAAAAATTA	CTGATCGCTG	ATTTCTTGCA	CTTGCTCCAA	4620
GGAAAGAAAA	GCTAATTCOA	CGAACAAATT	CCACATCTC	CTCGGTATAA	TCCTGATAGA	4680
TCTCTAGTGC	AAATCAATG	GCTTGATGGT	TATAAAATAG	GGTAGCATCC	GTCAGTCGAG	4740
ATAATTCCTG	ACCAATGGTC	ATTTTTCCTG	ATGCTGGAGC	ACCAATGATG	AAAAGATGCA	4800
TCAAATCACC	TCCCACTCAC	TCCTCAGCAA	GCCATATCTC	AAATCATCAC	AGCAGTTGCC	4860
TTGAGCATCT	TTGCGGCTCT	TTATGCGAGC	TTGCGGGTA	AAGCCAAGCT	TTTCCGAGAC	4920
TCGTTGACTT	TGAAGGTTAT	ATCCAAAGCA	AGTTAGTTCA	ATCTTTGTGA	GACCAAGTTC	4980
TTTAAAGGCT	AGATCAATCA	AGGAACACGC	TGCTTCTGGA	ACATAACCTC	GACCCCAATA	5040
GTCTGGGTGC	AAGGTATAGC	CAAGCTCTAG	CACATCATCC	GCATGAAGAT	GTTTGAAGTC	5100
AACAGAACCA	ATGACTTTAT	CGGTTCTTTT	GACGACAATC	CCATAGCCAG	CTGGGAGATT	5160
TTCTTTTGA	GTACGCTCCG	GAAGAATGTG	CTCCAGATAA	TAAATCTCAT	CTTCCAAGAT	5220
CTTGACTGGA	GGAAAACCTG	CTGGATAGGC	GACCTCTGGC	AAACTAGCGT	AGGTATGGAT	5280
ATCCTCAGCA	TCCACCACTG	TGCGGAATCG	TAAAACGAGA	CGTCTGTGTT	CGATTTTATC	5340
TGGCAGCTCA	GTCTCTGCCA	TCCTCTCTCC	TGCGTTTTTT	GATGAAAATG	CCCTTCATAT	5400
CTACACGCTT	GTCCAGATAG	CGATAAACGC	GCTGATATCC	ATCTCCCATG	AAATAGGTTG	5460
GGGCAACAG	TTGATTTTTA	AAATGTCCCT	TTTCATCCAG	GAGTTCTGGG	GCAACAAGTC	5520
GCTCAAGAA	CTTGCGCAAG	ATGTGGCAAA	TACCGCTTTC	CTCAACAATC	CTATCTACCC	5580
GACAATCTAA	AACAAGTGA	CAGGCGCTTA	AAATAGGAGT	CTGAGTTGCT	TCAGAAATTT	5640
CATAATGCAC	TCCCAACGTT	TCCAATTTCT	CCTGATGACT	GATAAAACCA	GCCTGCTCCA	5700
TGCGAAGCAT	AGAAGTTTCA	TCAGAAATAT	TCACAGTAAA	TTTTTTGATAC	TGTTTGATCT	5760
GCTCTGGGCG	ATTCTCTCTC	GCAACGACTC	CAATCACAA	CCAATCTCCT	AGACTATAAG	5820
AGGAACCTACA	GGTGTGATG	TTATAGCCAA	AATTCATAAT	TTGATATCCT	AAATAAAAAA	5880
CAGGAAAACC	ATAATATAGT	TTACTTGTGT	TAAAAGATTG	CTTCATAACA	ACCCCTTTTG	5940
ACTAAGACCT	AAANGAAAG	CCCTGCCATC	TACATGACAG	GGACGAATGT	GTTTATCCGC	6000
GGGG						6004

(2) INFORMATION FOR SEQ ID NO: 28:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 5857 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 28:

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TGFAGAAATTC ACGACAATGC TTCGTTGATT TCTGGGTGA TTTCGTGCGG TTCGGCAAG      60
CGAGTCAATG AACCAAAAT AGTACACAAT GTGGTATAAT CTTTTATGG CATATTCAAAT      120
AGATTTTGGT AAAAAAGTTC TCTCTTATTG TGAGCGAACA GGTAGTATAA CAGAAGCATC      180
ACACGTTTTC CAAATCTCAC GTAAATACCAT TTATGGCTGG TTAAGCTAA AAGAGAAAAAC      240
AGCAGAGCTA AACCAACAAG TAAAAGGAAC AAAACCAAGA AAAGTTGATA GAGATAGACT      300
TAAAAAATAT CTACTGACA ATCCAGATGC TTATTTGACT GAAATAGCTT CTGACTTTGG      360
CTGTCAATCCA ACTACCATCC ACTATGCGCT CAAAGCTATG GGCTACACTC GAAAAAAGAA      420
CCACACCTAC TATGAACAAG ACCCAGAAAA AGTAGCCTTA TTTCTTAAAG ATTTTAATAG      480
TTTAAAGCAC CTAACACCTG TTTAGATTGA CGAAACAGGA TTCGATACCT ATTTTATCG      540
AGAAATATGT CGCTCATTA AAGGTCAGTT AATAAGAGGC AAAGTATCTG GAAGAAGATA      600
TCAGAGGATT TCTTTGGTTG CAGGCTTAAC AAATGGTGAG TTAATCGCTC CAATGACTTA      660
CGAAGAGAGC ATGACAGGCG ACTTTTTTGA AGCTTGGTTT CAGAAGTTTC TCTTACCAAC      720
ATTAAACCACA CCATCGGTTA TTATTATGGA TAATGCAAGA TTCCATAGAA TGGGGAAGCT      780
AGAATCTCTG TGTGAAGAGT TTGGGTATAA ACTTTTACCT CTTCCTCCCT ACTCACCTGA      840
GTACAATCCT ATTGAGAAAA CATGGGCTCA TATCAAAAAG CACCTCAAAA AGGTATTACC      900
AAGTTGCAAT ACCCTTTATG AGGCTTTTTT GTCTTGTCT TGTTTCAATT GACTATATAA      960
ATTGTCTAAG CGAAACAACC GATAAGAAAT GGCACAAAAG CGACGTTATT TTGTGTATCA      1020
ATACAGGAAA AACAGTTTAT AGTTCTATCT TGAGCAAGTC TCTCCAGOGA GCAACGAAC      1080
GCCTTAAAAA ACCAATTCCT AACATCTGT CCCCTCACAT CTTCAGACAC ACCCATATTA      1140
GCATCTTATC AGAAAAATAA ATTCTTTTAA AACCAATCAC GGACAGGGTT GGTCAATCCG      1200
ACTCTGAAGT CACTACTTCC ATCTACACCC ACCTCACAAA GAACATGAAA GATGAAGCAA      1260
TCAATGTACT GGATAAAGTT ATGAAAAAGA TTTTTPAAAA AGTTTTGTCC CTTTTTTGCC      1320
CTCTAAATAC AAAAAATGCC CTTCGATAA AATCCGAGGG GCTAGAAACG TTGTTTAAATC      1380

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TTTACCTTTT TCATTCTAAA ATGTAAAGTA CAAACAATTA CAATATACTA GAGGGGGAGT	1560
AAAAAAGGTA TTAAATCGAT GAGTTCAGCA GGCAAGAAAA TAGCACCTTT ACGGGTGCTA	1620
TTTTTTAAAT AACGCCACGT TAACCTTTGA TTGATGAATT TTATTTGTTG GCACCTCTTT	1680
CATTTCACGG TAAACATCGA TGAATCTCTT TCCAACTATA TTTTGTGAGT TAACGTCAAT	1740
TATTTTGTGA TTAAATAACT TTTTAGTATC GAAAGAATGG TTAAAGAAAT CCATAACTAA	1800
CTCTCCTTTC TCATCTCTGA ATCAAGATTT TTATCAATGT CAAAATAGTA TTTTCTATCA	1860
ATCCAAATGG GTCCCTCTCC TTTAGAAATA GCAAGTACAT CTACCGGACC TCCTACTGTT	1920
TCAAGAGTGT TGACAAATTT TCTCTTAAAT GAAGTTAATT CAATAAATGT TTTAGCTGTA	1980
CTCGCAATTT CATTAAGTGG TTGCATCCCA ATAAGTCTTA TTATAGGATT TATATAATAT	2040
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TTCTCCATAA CTGATGATAC TTGCTCTGCG ATATATACAT TTAAGTTAGG ATCTATACCA	2160
TTCAATAATG TCTCAACCAT CTCTGACTGT GCAAAAGGGA TTATATGACA AGTTTATATG	2220
TGATTTATCA CACTTTCATT AATAACTTTC CAATTAATC GTTTAGAAAA AATTCCATAT	2280
AATTCAAATT GTCTTATAGA TGGAAATATC TCGTCTGTAC CATACCTGC TATAACTAAT	2340
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ACTTCAACCT CATCATAGT ATGAGGAAG GATTTAAAA CATCGCTAC AATGCTTTTT	2460
ATTAACTCTA ACTCAGCTTC AAAAAATCA AAATTAATTT CAGCTTCTAC TTTTGAATTT	2520
TCTTAAACTAA AATTAGTTAT AGCAATTAAT AAAATTTTAT TAAATATATC TAGAGTGATG	2580
GTTCACCAT TAGAACTCT TAAATCAGCT GTTCTTTGCG CTTCATAGGC AATGCTGTCC	2640
AAAAATCTTC TTGTACTTCT GACAATATAA TTTCTTAATA AATCCTCAAC TTGTAGATGT	2700
TTAAAGGAAA TTAATAATTC TATTAGCTTT TCAACGTATT GGGCAGTATT ATCTAATAAA	2760
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GAAGGCTTCC CATATATCAT GATCCCCACG GAATGTTCTT TTGATAAAGT GAATAAATTT	2880
CGGGCGCTAT TAAAAACTTT TGAATTTTTC CCGTCTGATA AGGTTACAGC GCTATCAGAA	2940
GCCAAATCAA CACCAATTTT ATTTAATATT CCAATTTCTG CTGTCAAAAT ATCACCATAA	3000
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ACACTTTTAA TACTGTATCA AGTTGTGGGC TTGTCCTTTC TGTTTCCATT CTAGGGATAA	3120
CTGGCTGACT AACACGCTC ATCTCCTCTA GTTCTCTCTG ACTAATACCC TTTTCAATTC	3180

TAGCCTCGAT	AAGCTCACTC	ATGATAGCCA	CGCGCATATC	ACTTTCCAA	ATTTCCCTCT	3240
TGCTGAATAA	TTCACTCTTT	ACATCTTTCC	AGTTACTACC	AATAGCATT	TTTTTCATTG	3300
TCTAAACCTC	TTTCTTTTAA	ATCTGCAAGT	TCACGTTTAG	CTTGCTCAAT	CTCTCTTTTG	3360
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GCAACAATAA	AAATCTCTATC	TCTAAGTGGT	CTCAGCTCCC	AAATTTCAAGC	ATCTAAATGC	3480
TTAATATATG	CTTCGCCCTGC	GGTGTTCCTA	TGTGTGCTTA	ACAACTCAAT	ATAATCATTA	3540
ATTTTATTA	GCCTAATCTT	GCTATCTTTC	CCTTTTTATC	TGGTAAGCTC	TCCGATATTA	3600
TCAAAACAG	GCTCATTTGCC	GTTTTATATC	TTGTAAAAAT	AGATATTATC	CACTATTAA	3660
ACCTCTTCCT	AATAACAAAT	ATAACCTAAA	AGTTATTTGT	TGTAAATACT	TTTAAGTTAT	3720
TAAATAAAAA	AGCACCTAGT	TTCTTAGATG	CTAGCACAAAT	GACACGGATT	CGCACCGTGG	3780
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GCTAAATATC	AAATCAGAAAT	AGATATTAAA	CCACTTATTT	AACCTTATCAT	AAGCTGGTGA	3960
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CTGCTGTATA	GTTGCGTATT	TTTGATAAGC	TAGCATATCT	TGATTTTATG	CAGCATCAAA	4140
CATTTTACGC	TCAAGGACAC	TATACTTAGG	TTGTCTTTTA	TCTCGCATGA	AATACCACTT	4200
GAGCCATAAA	ATCTTTTCTC	GGTGATATTAC	AGAAATACGC	TCAATTTTCT	TCTTTGTGAT	4260
TGCTACCTCC	TAAATCATCA	ATTTAACAAT	TCTAACCACT	CACCTTTTGA	AATAGTTGCA	4320
TAGATCTTGT	TGGATGTATG	ATACAAAGGT	TCTAAATCTT	TTTCCACCCT	AATATAGTTC	4380
ATCTTATCTT	CATGAGTAGG	AAAGTATAGT	ATTTCCGTTT	CATCCTCGTT	TAGGATACGA	4440
TTGCACCAAT	CATCAATAAT	AACCTGGCACT	TCCCACTAC	GCATTTTCTT	AAGGTTTCTT	4500
AAAAGTTTCT	TATCACTAAA	TAGCTCGCCA	TCTATTGGA	AAAAATCCCC	TAAGTCAATG	4560
TTTCTTCAA	CAATAATAAA	CTCTGGCATA	TTTCTATTAC	TTAATAACTC	CTTGAGTTCT	4620
TGTAACCTCT	TGATTTCTCT	TAGATACTTC	CTCAATTTCC	AACCTCAATTT	CTTCAATCTG	4680
CCTTACTACT	CCAAAATTTT	CATGGGTCTT	ATAAGATTGT	TCAAGTATAG	CCTTTGCTGC	4740
TTGAGTTCTT	ATAAACGGGT	TGACCTTACT	GTCCATCAT	ATATCATTTGA	GTACAGAAAC	4800
AGCGTATGAT	GATGCTAAAT	AAAGCAATTTG	AGTTGTTTTA	TCCATCATCT	CATCTTGCTT	4860
TATCCTCAAT	GTCTTTTAA	CCGCTGCAAC	TTTTAGATAC	TTATGACCTG	TTGCGCGTGA	4920

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TTTAAATTGCG TTGGACGFAA GGTATATCAT	TTTCAATTCCCT GCCATCTATT ACCTCCTCAT	5040
TATCAAAATA AAGGGTTGCC CTTTATTTTC	CCTATGCTAG ATAATTCTGC AATTCTGCAT	5100
CCAATTGCCCTC TGAATTGCC TCAACAATCA	TTTCATGCTG TACTAAATCA ATCTTATCTC	5160
CGTTAAATAAG TAAACCACCG TGAATAAT	CAATTTTCT ATCAAGGAAA TGCTAGCT	5220
TTTCAAGGCG TTGCTGTGG CTGAATTGCT	CCAATGCAAT TTGATATAA GCAAGGGTAG	5280
TATCATATATC CATAATATCT TCTAATTTTC	TAAGAGCTAG AGGTTTATTT TTATATTTT	5340
CTAGGTATTC TCTCATTTCT GCCACTGTTA	ATTTGATACT AGATAATAA CTGATTCAG	5400
CTGCATCATC TGCTGTATAA GGCTCTTCTT	TTGATTCATG GTTTGCTAGT TCAGCATTTT	5460
TCCTTTTTTC TAGTTGCTGA TACAATAGCT	GAGCAGTATT TTGGGAATAG TTTTCGCCCT	5520
CTTTTTTATA TTTTAAAGT TCTTGCTCTG	CATACACTTT CCCGATAATC ACTTCCTTAT	5580
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ACTTAATAT ACCATTTTTT GAGTATAAAA	CAAAGCCTTT CTCCATCAT TTTAATTAAT	5700
TATCATCCTT GTTTTCAGTC ATGCTTTTCT	CCTTTATTTT ATTTTATTAT AATCTGAATA	5760
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TGTGTACTCT ATGGCTGACT TTTCAANTTG	GTTAGTT	5857

(2) INFORMATION FOR SEQ ID NO: 29:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10254 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 29:

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GTGGACTACG GTGTCAACAT CCATCTAGGG	GAAAAATTTT ATCTTAATTG GAACTTGACC	240
ATGCTGGATA TCTGTCCCAT TCGTATCGGG	GACAACTCTA TGATTGGTCC TAATTGTTCAG	300
TTTTTGACAC CCGTCCATCC ACTAGATCCA	CAGGAACGCA ATTCAAGTAT CGAGTACGGA	360
AAGCCTATCA CAATCGGAGA TAATTTCTGG	ACTGGTGGTG GCGTCATTGT CCTTCTCGGA	420
GTGACACTGG GAAATAATGT CGTTGCAGGA	GCAGGGGCGAG TAATTACCAA ATCTTTTGGC	480

GACACGCTTG	TCCTAGCTGG	CAATCTGCG	CGCGTGATTA	AGGAAATACC	TGTTAAATAG	540
AAGTAAAAAG	GAACAGCTGG	GGTTGTTTCT	TTTTTGTAGG	TTTCATCATT	TTTTACCCAG	600
TTACACATTA	CCTACTCTAT	CTCTTAGCAA	GTCTGTTTCA	TTAAGCAAGT	TCAAAGCATC	660
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TTTGATACAA	TAGTACAAAA	TTAGAGGAGG	CAGGCTATGA	TTCAGAAACA	TGGGATTCCT	780
ATTTTAGAGT	TTGATGACAA	TCCTCAGGCG	GTTATCATGC	CCAATCACGA	GGGCTGGAC	840
TTGCAGTTGC	CAAGAAGTG	TGTTTATGCA	TTTTTAGGTG	AGGAGMTGA	CCGCTATGCG	900
AGGAAGTAG	GGGCGAAGTG	TGTTGGCGAA	TTTGTTCTCG	CCACCAAGAC	CTATCCAGTT	960
TATGTGTGTA	ACTACAAGGA	CGAGGAGGTC	TGTCGGGCTC	AGGCTCCTGT	TGGCTCCGCT	1020
CCAGCAGCCC	AGTTTATGGA	TTGGTTGATT	GGCTATGGTG	TGGAGCAGAT	TATCTCTACT	1080
GGGACCTGTG	GTGTCTTAGC	TGATAATAGAG	GAAATGCCCT	TTCTAGTCCC	TGTTCCGCGT	1140
CTGCGAGATG	AAGGAGCCAG	TTACCACTAT	GTGGCACTTT	GTGTTTATAT	GGAAATGCCAG	1200
CCAGAGGCTA	TGCTGTCTAT	TGAGGAAGTT	TTGGAAGACA	GAGGGATTCC	TATTAAGGAA	1260
GTGATGACCT	GGACGACAGA	CGGTTTTTAC	CGAGAAACGG	CTGAAAAGGT	GGCTTATCGT	1320
AAGGAAGAAG	GCTGTGCTGT	TGTGGAGATG	GAGTGTTCTG	CTCTTGCGGC	AGTAGCTCAA	1380
TTGCGTGGGG	TTCTCTGGGG	TGAATTGTGT	TTACACAGCAG	ATTCCTTAGC	GGACTTGAGC	1440
CAGTAGACACA	GTCTGTGACTG	GGGCTCGGAA	GCTTTTAATA	AGGCGCTAGA	ACTGAGTTTA	1500
GCAAGTGTTT	ACCACCTTTA	GTTGTACTGG	CAAAGGATTT	GTTTTATCAT	AAATGTGCTA	1560
GCTCATACTT	TTCAAAAATA	TGTTTAAACG	AGGTACACTT	CCTCTTGCCC	TAGGCATGTT	1620
GAGGTTGGGA	AAAACTTTTA	AAATCAGAAA	AACGTATCAT	ATCAGGTGAT	GAAGAACTTG	1680
ACACTATGCG	TTTTATGTCG	ATAAGATTTA	GAGTGAGATG	AAATGATACT	CTTCGAAAAA	1740
CTCTTCAAA	CAGGTACAGT	TCACCTTGCC	GTAGGTATAT	GTTACTGACT	TGTCAGTCT	1800
TATCCCGCAA	CCTCAAAACG	GTGTTTTGAG	CTGACTTCCT	CAGTTTATTT	TGCAACCTCA	1860
AAACAGTGT	TTGAGCAACC	TGTGACTAGC	TTTCTAATCG	ATGCCCTGGT	TTTCATTGCC	1920
TATAATCAAA	AAGAGAAATT	TTCTCTTGAA	AAGCATATAG	AGTAGCTGGC	GTTAAAAAGCT	1980
CCTGCTTTGC	TTTTTTGACC	TATAGTCCACA	TCTATCAAGT	ATTGTTCTTG	CCTAAGCTAT	2040
CAATAAAAAG	GTGGCACTTT	TTAGGCTTGG	TGTTAGTAGA	TTTTGCGCTTA	TCCTATCTAA	2100
GTCAATTTCGA	ACTTTTTTATG	GTACAATGGA	AACATGTTAT	TCAAAATTATC	TAAGGAAAAA	2160
ATAGAGCTAG	GCTTATCTCG	TTTATCGCCA	GCCCGTCGTA	TTTTTTTGAG	TTTTGCGCTTG	2220

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GTCATTTCAC TAGGCTCTCT TCTTTTGAGC TTGCCCTTTC TCCAAAGTGA AAGCTCACGA	2280
GCCACTTATT TTGATCATCT TTTCACTGCT GTCTCTGCAG TCTCTGTGAC GGGTCTCTCA	2340
ACCCCTCCAG TAGCTCACAC CTATAATATC TGGGGTCAAA TAATCTGTTT GCTCTTGATT	2400
CAGATCGGTG GTCTAGGGCT CATGACCTTT ATTGGGGTTT TCTATATCCA GAGCAAGCAA	2460
AAGCTTAGTC TTCGTAGCCG TGCAACTATT CAGGATAGTT TTAGTTATCG AGAAACTCGA	2520
TCTTTGAGAA AGTTTGTCTA TTCTATTTTT CTCACGACCT TTTTGGTTGA GAGCTTGGGA	2580
GCTATTTTGC TTAGTTTTCG CCTTATTCCT CAACTTGGCT GGGGACGTGG TCTTTTGTAGT	2640
TCCATTTTTC TAGCGATCTC AGCCTTCTGT AATGCCGGTT TTGATAAATT AGGAGCACCC	2700
AGTTTATTTC CTTTTCAGAC CGATTTACTG GTCAATCTGG TGATTGCAGG CTTGATTATT	2760
ACAGCGGCCC TTGGTTTATG GGTCTGGTTC GATTTCGCTG GTCATGTAGG AAGAAAGAAA	2820
AJAGGACGTC TGCACCTTCA TACGAAGCTT GTACTATTAT TGACTATAGG TTTGTTGTTA	2880
TTTGGAAACG CAACTACTCT CTTTCTTGAG TGGAAACAAT CTGGAACGAT TGGCAATCTC	2940
CCTGTTGCCG ATAAGGTTT AGTTAGCTTT TTTCAAACAG TGACGATGCG AACAGCTGCG	3000
TTTCTACGA TAGATTATAC TCAGGCTCAT CCTGTGACTC TTTTGATTTA TAICTTTACAG	3060
ATGTTTCTAG GTGGGGCACC TGGAGGAACA GCTGGGGGAC TCAAGATTAC GACATTTTTT	3120
GTCTCTTTGG TCTTTGCACG AAGTGAGCTT CTAGGCTTGC CTATGCCAA TGTTCGAGAA	3180
CGAACGATCG CGCCGCGAAC GGTTCAAAAA TCCTTTAGTG TCTTTATTAT CTTTTTGATG	3240
AGCTTCTTGA TAGGATTGAT TCTGCTAGGG ATAACAGCCA AAGGCAATCC TCCCTTTTATC	3300
CACCTCGTAT TTGAAACCAT TTCAGCTCTT AGTACAGTTG GTGTAAACGGC AAATCTGACT	3360
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GGTTATGCAC TGTAAAGATT TGGGGGTACC GACTGTATT GTCTAAGTCA AAAGTCAGAC	3840
CGCTAAGAAA GTGCTAGAAA AGATTGGAGC TGACTCGGTT ATCTCCGCGC AGTATGAAAT	3900
GGGGAGTCT CTAGCACAGA CCATTCTTTT CCATAATAGT GTTGATGTCT TTCAGTTGGA	3960
TAAAAATGTG TCTATCTGTG AGATGAAAAA TCCTCAGTCT TGGGCAAGTC AAAGTCTGAG	4020

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TTCCCCATTG GATGTTGAAT TTGGACCAGA TGACCTCTTG AAGCAGATA CCTATATTTT	4140
GGCAGTCATC AACACCACT ATTTGGATAC CCTAGTAGCA TTGAATCGT AAGAGGGAT	4200
GACCCCTCTT TTTTGATGCC TAAGATGGCA AATAGAGACA GAAGCCCTCT GTCTTCTAGT	4260
AAAGATTCTT CAAAGGCTGG ACTTTATGGT AAAATAGAAA GAAGTGACAA GAGAGAGTAA	4320
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AGTCTTGGCT GTTCGGCAGA TTTTGGCTG GGACCAGGTC GGAAATTTCT CCAAGGCCA	4980
GTATACCATG ATGCACTGCG TGATTTATCG GACAGATTTG TTGCGTGCTA GCCAGTTCTA	5040
ACTGCCGAA CATACTTTTT ATGTGATAA TCTCTTTGTC TTTACGCCCC TTCAGCAGGT	5100
CAAGACCATG TACTATCTGC CTGTGATTT CTATCGTTAT TTGATTGGGC GTGAGGACCA	5160
GTCTGTCAAT GAGCAAGTGA TGATTAAGTG CATTGACCGA CAACTCAAGG TCAATCGACT	5220
CTTGATAGAC CAACTTGATT TGTCCTAAGT GAGTCATCCC AAAATCGGAG AATATCTGCT	5280
GAATCATATT GAATCAGCA CGGTGATTC CAGTACCCGT CTCACCGAT CTGGAACAGC	5340
GGAGCATCTG GCAAAAAAAC GCCAATTGTG GACCTATATT CAGCAGAAAA ATCAGAGAT	5400
CTTTCAGGCT ATTCGTAAAG CCATGTTGAG CCGTTTGACT AAACATCTG TCTTGCCAGA	5460
TCGCAAACTG TCCATGTGCG TCTATCAAT CACCAATCT GTTTATGGAT TTAATTAATA	5520
TAAGTGTTTT ATAGAGGGA TTTAAGAAAA ATTTAACTT TTCTTAGTC CTTTTFATTT	5580
TCAGGAGATT ATACTAGAT CATCAATTA AGAAAGACT TAAGGAGAT CCTATGAAT	5640
TCAATCCAAA TCAAGAGATA ACTGTGTGTT CTATTGCGCG TCTCAGTGTC GGTGTTGCC	5700
CAGTGTGTGT GGCTAGTGC TTTCTTGTCC TAGTTGCTCA GCCAAGTCT GTACGTGCCG	5760

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ATGGGCTCAA TCCAAACCCA GGTCAGTCT TACCTGAAGA GACATCGGGA ACGAAAGAGG	5820
GTGACTTATC AGAAAAACCA GGAGACACCG TTCTCACTCA AGCGAAACCT GAGGGCGTTA	5880
CTGGAATATC GAATTCACCT CCGACACCTA CAGAAAGAAC TGAAGTGAGC GAGGAAACAA	5940
GCCCTCTTAG TCTGGATACA CTTTTTGAAA AAGATGAAGA AGCTCAAAA AATCCAGAGC	6000
TAAACAGATG CTTAAAGGAA ACTGTAGATA CAGCTGATGT GGATGGGACA CAAGCAAGTC	6060
CAGCAGAAAC TACTCTGAA CAAGTAAAG GTGGAGTGAA AGAAAAACA AAGACAGACA	6120
TCGATGTCC TGCTGCTTAT CTTGAAAAAG CTGAAGGGAA AGGTCCCTTC ACTGCCGGTG	6180
TAAACCAAGT AATTCCTTAT GAACATATCG CTGGTGATGG TAIGTTAACT CGTCTATTAC	6240
TAAAGAGTTC GGATAATGCT CTTGGTCTG ACAATGGTAC TGCTAAAAAT CCTGCTTTAC	6300
CTCCTCTTGA AGGATTAACA AAAGGGAAAT ACTTCTATGA AGTAGACTTA AATGGCAATA	6360
CTGTGTGTAA ACAAGTCAA GCTTTAATTG ATCAACTTCG CGCTAATGGT ACTCAAACTT	6420
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CCAAGGGTGA AGGTCCATTC ACAGCAGGTG TCAACCATGT GATTCCATAC GAACCTCTCG	6660
CAGGTGATGG CATGTTGACT CGTCTCTGC TCAAGGCATC TGACAAAGCA CCATGGTCAG	6720
ATAACGGCGA CGCTAAAAAC CCAGCCCTAT CTCCTACTAG CCAAAAAGTG AAGACCAAGG	6780
GTCAATACTT CTATCAAGTA GCCTTGAGCG GAAATGTAGC TGCCAAAGAA AAACAAGCGC	6840
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GTAAACAAGA CGGTAAACCA GACTTGACA ACATCGTAGC AACTAAAAAA GTCACTATTA	6960
ACATAAACGG TTTAATTTCT AAAGAAACAG TTCAAAAAGC CGTTCAGAC AACGTTAAG	7020
ACAGTATCGA TGTTCAGCA GCCTACCTAG AAAAGGCCAA GGGTGAAGGT CCAATTCACAG	7080
CAGGTGTCAA CCATGTGATT CCATACGAAC TCTTCGAGG TGAATGATG TTGACTCGTC	7140
TCTTGCTCAA GGCACTGAC AAGGCACCAT GGTCAAGTAA CGGTGACGCT AAAAACCCAG	7200
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GTACTCAJAC TTACAGCGCT ACAGTCAATG TCTATGGTAA CAAGACGGT AAACGAGACT	7380
TGGACAACAT CGTAGCAACT AAAAAAGTCA CTATTAACT AAACGGTTTA MTTCCTAAG	7440
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ACCTAGAAAA GGCCAAAGGT GAAGGTCCAT TCACAGCAGG TGTCACCAAT GTGATTCAT	7560

ACGAATCTTT CGCAGGTGAT GGCATGTTGA CTCGTCTCTT GCTCAAGGCA TCTGACAAGG	7620
CACCATGGTC AGATAACGGC GACGCTAAAA ACCCAGCTCT ATCTCCACTA GGTGAAAACG	7680
TGAAGACCAA AGGTCAATAC TTCTATCAAG TAGCCTTGGA CGGAATGTA GCTGGCAAG	7740
AAAAACAAGC GCTCATTGAC CAGTCCGAG CAAACGGTAC TCAAACTTAC AGCGCTACAG	7800
TCAATGTTTA TGGTAACAAA GACGGTAAAC CAGACTGGA CAACATCGTA GCAACTAAAA	7860
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CTTCTAATCT TGGTCTGGC GTGACTCCGA TGAATCAGAA TCATGCTACA GGTACTACAG	7980
ATAGCATGCC TCGTCACACC ATGACAAGTT CTACCAACAC GATGGCAGGT GAAAAATGG	8040
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ATACTGGTGA GACTCAAACT TCAATGGCAA GTATTGGTT CCTGGGCTT GCGCTTGAG	8160
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AGTATAGCAC TGTTTTATC AAAGGAGAGA CAGATGGGAA AGACAATTTT ACTCGTTGAC	8400
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ATGCTGGAAT TAATGTTTAA ATCATTTGAA TTGCTGTGGA TTTTAGCTAG TAATCCAGAG	8880
CGAGTTTCT CCAAGACAGA CCTCTATGAA AAGATCTGGA AAGAAGACTA COTGGATGAC	8940
ACCAATACCT TGAATGTGCA TATCCATGCT CTTCGACAGG AGCTGGCAAA ATATAGTAGT	9000
GACCAAACTC CCACTATTAA GACAGTTTGG GGGTTGGGAT ATAGATAGA GAAACCGAGA	9060
GGACAAACAT GAAACTAAAA AGTTATATT TTGGTTGGATA TATTATTACA ACCCTCTTAA	9120
CCATTITGGT TGTPTTTTGG GCTGTTCAAA AAATGCTGAT TGCGAAAGGC GAGATTTACT	9180
TTTTGCTTGG GATGACCATC GTTGCCAGCC TTGTGCGTGG TGGGATTAGT CTCTTTCTCC	9240
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AGGATTTTCC TTCAAATTTG GAGGTTCAG GTCCCTGTAGA ATTTTCAGCAA TTAGGGCAAA	9360
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GAGAAAAAGG CTGTATGATT GCCAGTTGT CGCATGATAT TAAGACTCCT ATCACTTCGA	9480
TCCAAGCGAC GGTAGAAGGG ATTTTGGATG GGATTATCAA GGAGTCGGAG CAAGTCATT	9540
ATCTAGCAAC CATTTGAGCG CAGACGAGA GGCTCAATAA ACTGGTTGAG GAGTTGAATT	9600
TTTTGACCTT AAACACAGCT AGAATCAGG TGGAACTAC CAGTAAAGAC AGTATTTTTTC	9660
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GAGATGTCCA CTTCGAGTA ATCCCAGAGT CTGCCCCGAT TGAGGGAGAT TATGCTAAGC	9780
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GGCAGGGTAT TGCCCCAGAG GATTTGGAAA ATATTTTCAA ACGCCTTTAT CGTGTGCAAA	9960
CTTCGCTTAA CATGAAGACA GGTGGTCATG GATTAGACT TGCATTGCG CGTGAATTGG	10020
CCCATCAATT GGGTGGGAA ATCACAATCA GCAGCCAGTA CGGTCTAGGA AGTACCTTTA	10080
CCCTCGTTCT CAACCTCTCT GGTAGTGAAA ATAAAGCCTA AAACCCCTTT ACAATCCAG	10140
CTATTTCATG TAGAATAGAT TTTGTGTGAA ATATCAGCAG GAAAGCATGA AGCTCGTCAA	10200
CAGCTGTCTT ATGACAAGTA AACTTGGCTG TTTAGGCGAA GGCATCTGC ACGG	10260

(2) INFORMATION FOR SEQ ID NO: 30:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 9769 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 30:

CCGGCGACTA TCGATAACAC TTGACTTGGT AGCCCCACAT TTTGSAAC GCATCTTTC	60
CCTCCTTATC GTTTCTTTT CATTATACCA TTTTTFAGC GATTCCCAA ACAATCTTC	120
TTTTTGCTTG ACAAGTTTT TGTTTTGTG TATTATTTAA TTAAGACAAC AAGGTAAAG	180
AAAGGAGACT AAGATGTCT GCACATTTGA CAACAAAAA CCCATCTATT TACAGATTAT	240
GGAGAAATC AAGCTTCGA TTGTTTCCCA TACACTGGAA OCCAATCAAC AACTTCCAAC	300
CGTAGGAGC TAGCTAGCGA GGCTGGTGT AATCCCAATA CCATCCAAAG AGCTTTATCA	360
GACCTGAAC GAGAAGGATT TGTCTACMGC AAGCGAACAA CTGGACGATT TGTGACTAAG	420
GATTAAGAGC TAATCGCCCA GTCACGCAA CAATTATCAG AAGAAGAAAT GGAACACTTC	480

GTTCCTCCA	TGACCCATT	TGGCTATGAA	AAAGAAGAAC	TACCAGGCGT	AGTCAGTGAT	540
TATATTAAAG	GAGTTTAAAG	CTATGTCATT	ACTAGTATT	GAAAATGTAT	CCAAATCATA	600
TGGAGCAACA	CCAGCCCTTG	AAAATGTTTC	TCTTGACATT	CCAGCTGGAA	AAATTTGTCG	660
CTTCTTGCG	CCAAACGGCT	CAGGAAAAAC	AACCTGATT	AAACTAATTA	ATGGCCTCTT	720
ACAACCAGAT	CAAGGACGTG	TCTCATCAA	CGACATGGAC	CCAAGCCAG	CAACCAAGGC	780
CGTGTAGCT	TATTTGCGTG	ATACGACCTA	TCTCAATGAG	CAAAATGAAG	TCAAAGAAGC	840
CCTAACCTAC	TTCAAGACCT	TCTATAAAGA	TTGTCAGATC	TTGAACGGC	CCATCATCTA	900
CTTGACAGCC	TGGGCATTGA	TGAAAATAGT	CGTCTCAAGA	AACTATCAA	AGGAAACAAA	960
GAAAGGTTT	AACTGATTTT	GGTTATGAGC	CGTGATGCTC	GTCTCTATGT	TTTGACGAA	1020
CCCATTTGGTG	GGGTGGATCC	AGCAGCCCGT	GCTTATATCC	TCAATACCAT	TATCAACAAC	1080
TACTACCAA	CTTCTACCGT	TTTGATTTC	ACCCACTTGA	TTTCTGATAT	CGAGCCAATC	1140
TTGGATGAAA	TTGTCTTCCT	AAAAGACGGA	AAAGTCGTCC	GTCAAGGAAA	TGTGATGAT	1200
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TGTTATTTAG	CCCTCTACGC	AGCGTGCTA	GTCTTTCTG	CCCTCATCGG	AATACAGACA	1380
CAAGGCTTTA	AAAATCTACC	TTACCAAGAA	AGTCAGGCTA	CTATGCTACT	TTTTCTAGCT	1440
ACAGTCTTTG	GTGGCTTGAT	GCTTACACTT	GGGATTTCAA	CCATTTCTCT	GATTATTAAA	1500
CGCTTCAAAG	GTAGTGTCCTA	CGACCGACAA	GGCTATCTGA	CTTTGACCTT	GCCAGTTTCT	1560
GAACACCATA	TCATCACAGC	CAAACTAATC	GGTGCTTTTA	TCTGGTCATT	GATTAGCACC	1620
GCTGTATTGG	CTCTAAGTGC	TGTTATTATT	CTGGCTTTAA	CAGCTCCAGA	ATGGATTCTT	1680
CTTTCCTATG	TGATTCACATT	TGTAGAACA	CATCTCCCTC	AGATCTTTCT	TACAGGTATA	1740
TCCTTCCTAC	TAAATACAT	TTCAGGAATC	CTCTGCATCT	ACCTGGCTAT	TTCCATTGGA	1800
CAGCTTTTCA	ATGAATACCG	TACAGCACTC	CGCTTTGCAG	TCTCAATTGG	TATCCAAATC	1860
GTCAATGGAT	TTATTGAAC	TTTCTTCAAT	CTTAGTTCTA	ATTTCTATGT	CAATTCAC	1920
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TCTTTAAAA	TAGAAAAAGC	ATAGTATCAG	GTGTTGAATA	TGTACTGGCC	CCCAAAAGTT	2160
AGATTTTTC	TGCTTAACCT	TTGGGGGCAG	TTCAATAAGAA	CCTTGGTAAT	ATGCGTTTTC	2220

	320	
TGTGAGCTGA CTTATTTCCT TTCACTATAT CGCAAAATGA AATAAGAAAG GAACGATGGG	2280	
ATTTTGGAAAT TCAAAATCAAT TTATAAGAAAT GTTTTAGAAG TAATATTATC CTAATCCAGA	2340	
TTCAGTTCAC TATACAAATG AGTTTTCAGG CAACCTGTGT ACATAATCTG TACATAATTA	2400	
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GCTCATCTCAA GATAATCAGG TCTGGTTCAT GAATCAGAGT AATAATGAGC TGAATCTTCT	4140
GCTGATTCC TTTTGACAGA CTCGTGATT TATCTGTGAG CTTTCCTTTC ACTTCCAACC	4200
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CCAAGTAGAG AACTTGTTCA AGAAGTGTCA ATTTAGGCAT GAGATGCGTT CTTCAGGAG	4320
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TATATCTATT ATGCACACCC CTATAGGATC TAATGAAAT CACAACAGGC TCATTTCATG	5280
ATGGTTACCT AAGCCTAAG GAACCTAAG AAGCACTACC AAGGAAGTCG CATTCACTGA	5340
AAAGTAGATT AACAACTATC TAAAAAAATG CTGGAAGTAC AAGTCCCCCA GAGAAGACTT	5400
CTGGATGACT AACTGAACT TGAATTTAG CATAAATTAA TTAACATCT AACTATATTT	5460
AGTAATTATF TCAGAACTGA TTAATATTAA AATTAACATA CAATCAAGG GATTCATCT	5520
AGCCATAAAT TACGTCCATC AGAGAGAGAC TCTTACTACT TTAGAATTT AGTCTTCTA	5580
GCTTCAGAAAT ACATCTAAAC TTAGGGGAAA ATGACTATTC GAAAGCGGA ATGCTCTAAA	5640
ATTATCTCAG ATAAGCTATT CGAAACTTAG AATGCTTTTA AATTTATGGA ATTGCGATTA	5700
TTGAAACCT AGAATGCATA TAACCTTAG TTGACAGACC TATTTCAAGT CTCGAAGGGC	5760

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TATTTACTTT	CTATTCCTTA	TCAAAAAGA	CTCATTCCTC	CTTTCTCTC	CAAAATATGG	5820
TATAGTAGAA	ATATACTATC	TATGAGGAGT	TTCATGTCA	CAGGATAAAC	AAATGAAAGC	5880
TGTTTCTCCC	CTTCTGCAGC	GAGTTATCAA	TATCTCATCG	ATTGTCGGTG	GGTTGGGAG	5940
TTTGATTTTC	TGTATTTGGG	CTTATCAGCG	TGGGATTTTA	CAATCCAAGG	AAACCTCTC	6000
TGCTTTTATC	CAGCAGGCAG	GCATCTGGG	TCCACCTCTC	TTTATCTTTT	TACAGATTTT	6060
ACAGACTGTC	GTCCCTATCA	TTCCAGGGGC	CTTGACCTCG	GTGGCTGGGG	TCTTTATCTA	6120
CGGGCACATC	ATCGGGACTA	TCTACAACTA	TATCGGCATC	GTGATTGGCT	GTGCCATTAT	6180
CTTTTATCTA	GTGCGCTAT	ACGGAGCTGC	CTTTGTCCAG	TCTGTCTGCA	GCAAGCGCAC	6240
CTACGACAAG	TACATCGACT	GGCTAGATAA	GGGCAATCGT	TTTGACCGCT	TCTTTATTTT	6300
TATGATGATT	TGGCCCATTA	GCCAGCTGA	CTTTCTCTGT	ATGCTGGCTG	CCCTGACCAA	6360
GATGAGCTTC	AAGCGTACA	TGACCATCAT	CATTCTGACC	AAACCTTTTA	CCCTCGTGGT	6420
TTATACCTAC	GGCTGACCT	ATATTATTGA	CTTTTCTGG	CAATGCTTT	GACAGTAA	6480
AAATCGGTTT	GGTTTCCCAA	TGGGATTTT	AAAGCGTAGA	TTAATATATG	CTTGATATCA	6540
AATATATCTT	GGTATGGAAA	TCATGCATAT	TTTTCGATAG	TGAGCGAGG	ACTTACCTAG	6600
CCTTTCCGCC	GTGATAGAAA	CACCTGAAAT	CTAATGGTTT	CAGGTATTCG	GAAACTTTGA	6660
GCCTAGTGTC	TCAAAGTTTA	GGTATGGAAT	TTTGAAGAAA	GTGCTACCG	TCCGTAATCA	6720
CTTAAGGAAA	GGCTCAAAA	TATTGTTTT	AACCACAAA	TCCGTTTGGT	TTCCCAAGG	6780
GATTTTGTC	TTTATTTTGA	AACTCTTTT	GCAAGAACAA	AGTTCCCAAG	TGTGGCAGAA	6840
CCATTCTCTG	CGACTGCTGG	CGTCACGATA	TAGTACGCA	CATCTGGTAC	TGTAGGTAA	6900
CCATTAAAGA	GAGATGTAAA	TTTCTCAGG	ACACGGTCCA	GCATATGTTG	TTGAGCCATG	6960
ACCCCTCCAC	CAAAGACAAT	CAGCTCTGGG	CGAAAGTCA	CTGTCGCAAT	AACCGCAGCT	7020
TGAGCGATAT	AGTAGGCTTG	AACATCCCAA	ACAGGGTTGT	TGAGTTCAAT	AGTTTCCCCA	7080
CGTACACCTG	TACGAGCTTC	CAAACTTGA	CCAGCTGCAT	AACCTTCTAG	ACATCCCTTA	7140
TGGAAGGAC	AAACACCTT	AAACTCTTTT	TCAATATCCA	TTGGGTGTCT	AGCAACATAA	7200
TAATGACCCA	TTTCAGGGTG	ACCCACACCA	CGATAAACT	CACCAAGTTG	GATGACGCT	7260
GCACCGATAC	CTGTACCGAT	TGTGTAGTAA	ACCAAGTTT	CGATACGACC	ACCAGCATTG	7320
TTACGGGCAA	CCATTTCACC	GTAAGCAGAG	CTGTTTACGT	CTGTGTGTGA	GTACATTTGC	7380
ACGTTTAGGG	CGCGACGAAG	GGCAACGAAG	AAGTCTACAT	TTGCCAGTT	TGGTTTGGAA	7440
GTGTCGTGA	TAAAGCCATA	AGTTTTTGAG	TTTTTGTCAA	TATCAATCGG	CCCAATGAA	7500
CCAACCTGAA	GACCAGCAAG	GTTATCGAAT	TTTGAGAAGA	ACTCAATGGT	TTTATCGATT	7560

GTTTCGATTG GAGTTGTTGT TGGAAATGT GTTTTTCCTA CAACGTTAAA GTTTTCATCA	7620
CCGACAGCAC AGACAAACTT TGTACCGCCC GCTTCCAAGC TTCCAATATA TTTTGTCAATG	7680
ATAAACCTCF TGTPTTTATT TTCTTTATTA TAGCATACTT CGAAGTCTA AATGTCTCTA	7740
TTTTTTAGAT TTTCCCTCTG AAATCTTACT ATCTAATAAA AACGAACAA CATGTCATTT	7800
GTTCTGTTTC ACATTAGAGA GGATTGATTA GATTTTCACT TCGATCAGAG CATCCCCCTT	7860
AGCAACTGAA CCTGTTGCGA CTGGAGCTAC TGAAGCGTAG TCACCTGTAT TTGTAAACGAT	7920
AACCATTGTT GTATCATCAA GTCCAGCTGC AGCGATTTTG TTTGATCAA ATGTCCCAAG	7980
AACATCGCCA GCTTTCACCT TATTACCTTG AGCAACTTTT GPTTCAAAAC CGTCACCGTT	8040
CATAGATACA GTATCAATAC CAACATGAAT CAAAACTTCA GCACCATTTT TGTTTTCAA	8100
ACCAAAAGCG TGCCCTGTTG GAAAGGCAAT TGAAGTTTCA GCATCAGCTG GTGCATAGAC	8160
CACGCTTGG CTTCGTTTCA CAACGATACC TTGTCCCATG GCTCCACTTG AGAAGACTGG	8220
GTCAATGACA TCAGCAAGAG CGACAACATC ACCGACGATA GAGTTACAA GTGTTTCATT	8280
TTGAAGAGCT GCTGGGCGAA CTCTTCTTTT TTCTTCAGCC ACTTCAGCTC GTTTTGCAGC	8340
TGCAGTTGCG TCTACTTCAT CTTCGTAAAC AAACATGTAA GTAAGAGCAA AACCAGGGC	8400
AAATGATACA GCTACCATTA GAAGGTATTG TGGAGTTGT CCGTTACCAA CATAAAGCAT	8460
TGTACCAGGG ATGATGGTGA TACCATTACC AGTACCAGCA AGTCCAAGGA TAGAAGCCAA	8520
TCCACCACCG ATTGCACGAG CAATCAATGA AAGGAAGAA GTTTTACGGA AGCGCAAGTT	8580
CACCCCGAAG ATAGCAGGCT CTGTAATACC TAGGAAGGCA GAAAGAGCAG CCGGGAAGC	8640
AAGTGTTTTT AGTTTGTGAT TTTTGTGTTT AACACCAACC GCAACAGTAG CAGCACCTTG	8700
AGCTGTGATA GCAGCTGTGA TGATAGCGTT GAATGGTTTA GCATGTCTAG CAGCAAGTAA	8760
TTGCACTTCA AGCAAGTTGA AGATGTGGTG CACACCTGAC ACGACGATCA ATTGGTGAAC	8820
CCCACCAATC AAGAAACCAC CAAGACCAAA TGGCATGCTA AGAATCGCTT TTGTAGCAAT	8880
AAGGATGTAG TTTTCAACAA CGTGGAAGAC TGCTCCCATG ACAAGAGTC CAAGGATAGA	8940
CATGAACAAA AGTGTACGGA ATGGTGTAC CAAGAGTCA ATGACATCTG GAACAACTTG	9000
CGGACAGCTT TTTCAAAATTT AGCTCCGACA ACCCCGATGA TGAAGGCTGG AAGAACGAA	9060
CCTTGCAAAC CAACAACAGG GATGAAACCA AAGAAGTTCA TCGCTGTATC TTCAACACCT	9120
TGAGCAACTG CCCAAGCGTT TGGAAAGTGG CCAAGAGACA GCATCATACC AAGAACGATA	9180
CCAACGCGAG GATTTCCACC AAATACACGG AAGGTTGACC ACACAACCAA ACCTGGCAAG	9240
ATGATGAAGG CTGTATCTGT CAAGATTGTT GTGTAAAGTT CAAAGTCACC TGGAAAGTGGC	9300

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ATTTCAAGAG CGTTGAAAAG ACCACGCACA COCATGAAGA GACCTGTGCG TACGATAACT	9360
GGGATGATTG GAACGAAAAC ATCACCAAAA GTACGGATAG CACGTTGGAA CCAGTTCCCT	9420
TGTTTAGCAA CTCTGCTTT CATGTCATCC TTGATGATG TTGGTAATCC AAGTACAACA	9480
ACTTCATCGT ACATTGTTGT AACGTACCT GTACCAAGA TAAATTGOTA TTGCCCTGAG	9540
TTAAGAAGG CACCTGGAAC TTTTCCAAG TTCTCAATCA CTTCCTTATT GATTTCCTCT	9600
TCATCTTTGA CCATGACACG TAGACGAGTC GCACAGTGG CAACACTATT GACATTTTCA	9660
CGTCCGCCCA AGGCATCGAT GACTTTTTTT GCAATTCTCT GATTGTTCAT TTGCAAAAAT	9720
CTCCTTATAT AACATTTGT TCTTGTTTGA AAGCGATTTT ATTGCGCGG	9780

(2) INFORMATION FOR SEQ ID NO: 31:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3149 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(x1) SEQUENCE DESCRIPTION: SEQ ID NO: 31:

CGCTTGAGTG CTAATTCATA GTTCTATAGT ATCACTTGGT CAGAAATAAT CAGAAAAAA	60
GTCTGACTTT CTCAGATAA AAGCCTGAG ACCAACTCAG ACTTTTAAAT TCTTAAATG	120
GCAATCTTC CTCTTCCAAG ACCAAATCTG CCAAACTCTG GCCTGCATTA TTTTCAGCA	180
TAGCAGCTTG GGCACGACTT TCCAAGAGTT GGAATCCTGT GACAAGTACT TCGGTCACGT	240
AGTTCATTTG GCCATTTTTC TCAAGCGAC GGGTACGCAA TTCTCCATCA ACGGAATGA	300
GACTACCTTT GGTTCGTAC TTGCCAAGT TTCTGCTAGT CTGCCCATTA GGACCATATT	360
GACAAAATCA GCTTCACGTT CACCGTTTGT GTCTTTGTAA CGACGGTTCA CAGCGTAGT	420
TGCTCGCGCT ACCGACTTGT CATTGTTGGT TTTGTCAAT TCTGGGTAG AGGTTAAACG	480
TTCAATCAAG ATAACTTTAT TATACATATT TTCTTCTCC TACTTATCTA TTCTAGAGAA	540
ATCAAAAAA GTTACAGAAA TTGTAACTT TTCGAGAAA TTTTATATT TTTATGAAC	600
ATGAACCTG TCGCTCTGTG ATTGCCATA ATGGTCATAT CTGTAATCTG AACACGACGA	660
GGTGTACTAG TCACATAGAC TACTGTATCT GCAATATCCT GAGCTTGCAA AGCTTCTATT	720
CCTTGGTAAA CGGACGCAGC TCGTCTTTA TCACCATGAA AACGCACGTG AGAAAAATCT	780
GTTCGACAA TTCCAGGCTG AATGGTCGT ACCTTGATAT CCGTTCGAT GGTATCAATT	840
CGCATCCAT CTGAAAAGST CTTAACTGCC GCCTTGGTGG CTGAGTAAAC AGCTGCACCA	900
GCATAGGCAT AAATCTCTCG GGTGACCCC ATATTGATAA TATGACCTTG ATTGGCTTTT	960

ACCATGTGCT	GCAAGAAACA	GCGAGTGACT	GCCATCAAAAC	CTTTGACATT	GGFATCCAAAC	1020
ATGGTCAGCA	TATCCAACTC	TTCTAGTCT	TGATAGGGAG	CTAAGCCAAAG	AGCCAGTCTT	1080
GCCTTATTGA	CCAGGATGTC	AATCTGACCT	ATCGTTTCTA	AAATATCAGA	GCAGACAGTC	1140
TTTACCATTG	TCATATCCCT	GACATCTAGG	AGAAAAGTCC	AAACTGTTTG	ATTTOGAAAA	1200
GTTTCTCGAA	ACTCCGCGCT	AAGAGCTTCT	AGTCTGTCTA	TCCGTCGTCC	TGTTAGAACG	1260
ACATCTCAG	CCTGCTCCAG	ATAAGCACGC	GCAATCGCTT	CACGATTCCT	TGATGTCGCT	1320
CCTGTAATCA	CAACATTTTT	TGCCATCTTA	TTTCTTCTA	GCTGGTCTAT	CAGATATTAA	1380
CAACTTCTTA	GCGAGTCCAG	TGTTTGTCTG	GCTCGAACGG	TGTTCCGACA	ACTTGGTCTT	1440
CTGATAATTC	AAGCACCCCA	CGTTTTTGTG	GAGCAITTTG	CAGATGCAAT	TCACGAGGAC	1500
TGCACATCAT	ACCAAAACTC	TTTTCAACCAC	GAAGTTCACC	TGGGAAAATG	AGATTCCCTT	1560
TTGGCATCAT	AGCTCCAGGA	AGCGCGACAA	TGGTTTTCAA	CCCCACACGC	GCATTGGGAG	1620
CTCTGCAAC	GAITTTGTACA	GTCTTATCAC	TTGCGACTGC	AACTTGGCAG	ATGTTGAGGT	1680
GGTCACTATC	TGGATGGGCT	ACCATCTCAA	CAATTTCAAC	TACAACAAAC	TTAGGTTCCCT	1740
TATCATTAAC	AATTTCTTCT	GTAAAACCTT	CCGCTTGCAA	CTCTTGCTTC	AAACGAGCGA	1800
CTTGCTCATC	TGTCAAAAAG	ACTTGACCGC	GCTCTGCAAT	TTCAAAATAA	CTTGAACCTT	1860
CGAAAATATT	CCAAGCCACT	GTTTCCCAT	TATCTTTGAG	AAAAACACGG	GCTACTTTGC	1920
CTTTGCGCTC	CACATCCAGT	TTGGCATCTC	CGTATTTTT	CACGATGACC	ATAAGGACAT	1980
CACCGACATG	TTCTTTATTTA	TATCTAAAAA	TCAATTGTTT	CTTTTCTCC	TATTTCACTC	2040
CTGCTAAAAA	GTCAITGATT	TGTTGCTTGC	TTTTACGGTC	GCGATTGACA	AAACGACCGA	2100
TTCTCTGTCT	CTTTCTTAGA	ACAACAAGGC	TAGGAATTCC	GTAACATACC	CAGAGTTTGG	2160
CCAAATCCAT	ATACTGATCT	CGGTCCATTC	GAATAAAGGT	GAACCTGGA	TTGGTCTCCT	2220
CAATCTCTGG	TAAGGCAGGA	TAAATATAAC	GACAAATGCT	ACACCACTCT	GCCACAAAAA	2280
TGAAGACCTT	CTTGCCGCTT	TTTTCCACTA	AAGATGCTAA	TTCTTCTAAA	CTTGCTGGCT	2340
GTATCATAAG	ACTTCTCTCT	CATAGACTAG	GTCTTCATTT	TCATAGACAA	AGGTATAATG	2400
ACGGCCATCC	TCAAAAATGA	CGCCACCAAC	CAAGCTCTCC	AGACTGCTTT	CGTAAACTTG	2460
AACATAAAGG	GTCGCAATTT	CCCCATGTCT	GGAAAAATGG	TCTCGCACAA	TCTCTGTCAA	2520
CTCTTCCTGA	GTCTTCATGA	GCTTACGGTC	ATCTGCAACT	TTTTTCGTAG	CAAGAGCAAG	2580
GCTTCCGATA	CCTAGCAGAG	CCAAGCCTGC	CATCCACATT	TTTTTAGGCT	TCATACCAAT	2640
CATTTTAACA	CAAAAAAGGC	TTCAAGACAA	ATGAGGAAGC	AGCAGAAAAA	CAAGTAAAAA	2700

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GCCTCTTCCT TTAAGGAAAA GGACITCTTA TACTCAATGA AAATCAAAGA CCAAACTAGG	2760
AAGCTAGCCG CAGGCTGCTC AAAGCACTGC TTTGAGGTTG TAGATAGAAG TGACGAGTCa	2820
CTCAAAACAC TGTTTTGAGG TTGTGGATGA AGCTGACGTG GTTTGAAGAG ATTTCGAGG	2880
AGTATTATTCT TTAATTGCCAG GCACCTAAGT TGCCAACGTA GTAACTATCA GGTGTGTAGG	2940
TATTTGCCAGC ATCTTACCTG ATGAAGCCAG ATAACTACTC TTGCCATTGT CTTTGACCCA	3000
ATCATTTGCA ATCATGGAAC CAGAAGAACT TACATAATAC CATTCTCCCT TGTCAATAAC	3060
CCAGGTACTG ACTTTCATGG TTCTTGAGCA ATTAAAGGCA AAAAACTGT CCAATAACAT	3120
TCGTTTTTTA AAAGCATTGG ACACTACAT	3149

(2) INFORMATION FOR SEQ ID NO: 32:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10240 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 32:

CCAAAAATTC AACCTTTTAG GGGAGTCCAG AGAGACTCAC AAGGTGTGAG ATAAAAGAAT	60
GGTGCAATTT TCTAGAGGAG ACTTTTGTGAG TGTGCTCTCT TGTTGTGTAC GATTTTAACT	120
GAGGCTTGC ACTAGCAAGG TCTTTTCTTT ATCTGCTCCC CTTAAAATTT AAGGAGGAAA	180
AGTTATGAAT CCCACATGTA AGAAGCGTTT GGGTGTCAAT CGGTTGGAAA CCATGAAGGT	240
GGTTGCACAA GAGGAAATCG CGCCACAATC TTTGAATTAG TCCTAGAAGG AGAATGSGT	300
GAAGCCATGC GAGCAGGCCA ATTTCTTCAT CTGCGTGTAC CGGACGATGC CCATCTCTTA	360
CGTCTCTCTA TTTCAATTTT GTCTATTGAC AAGGCAACA AGCAGTGTC ACTCATTTAT	420
CGGATTGACG GAGCTGGGAC TGCAATTTTT TCAACCTTAA GTCAGGGAGA CACTCTTGAT	480
GTGATGGGGC CTCAGGGAAA TGGTTTGAC TTGTTCTGACC TTGATGAGCA GAATCAGGTT	540
CTCCTTGTGT GTGGTGGGAT TGGTGTCCA CCTTGTCTG AGGTGGCCAA GGAATTGCAAT	600
GAACTGGGAG TGAAGGTAGT GACAGTCCCTC GGTTTTGCTA ATAAGGATGC TGTATTTTTG	660
AAAAAGCAAT TGGCTCAGTA TGGTCAAGTC TTTGTAACGA CAGATGATGG TTCTTATGAC	720
ATCAAGGAAA ATGTTTCCGT TGTATCAAT GATTTAGACA GTCAGTTTGA TGCTGTATTAC	780
TCGTGTGGGG CTCAGGAAT GATGAAGTAT ATCAATCAAA CCTTTGATGA TCACCCAGA	840
GCCTATTATAT CTCTGGAAAT TCCTATGGCT TGTGGGATGG GAGCTTGCTA TGCCGTGCTT	900
CTAAAAGTAC CAGAAAACGA GACGGTCAGC CAACGCGTCT GTGAAGATGG TCCCTGTTTC	960

CGCAGAGAA CAGTGTATT ATAAGGAGAA AATTATGACT ACAAATCGAT TACAAGTTTC	1020
TCTACCTGGT TTGGATTGA AAAATCCGAT TATTCCAGCA TCAGGCTGTT TTGGCTTTGG	1080
ACAAGAGTAT GCCAAGTACT ATGATTTAGA CCTTTTAGGT TCATATATGA TCAAGGCGAC	1140
AACCCCTGAA CCACOTTTTG GGAATCCAAC TCCAAGAGTG GCAGAGACGC CTGCTGGTAT	1200
GCTCAATGCA ATTGGCTTGC AAAATCCTGG TTTAGAGGTT GTTTTGGCTG AAAAGCTACC	1260
TTGGCTGGAA AGAAGATATC CAAATCTTCC TATTATTGCC AATGTAGCTG GTTTTTCAAA	1320
ACAAGAGTAT GCAGCTGTTT CTCATGGGAT TTCCAAGGCA ACTAATGTAA AAGCTATCGA	1380
GCTCAATATT TCTGTCCCA ATGTTGACCA CTGTAATCAT GGACTTTTGA TTGCTCAAGA	1440
TCCAGATTTG GCTTATGATG TGGTGAAAG AGCTGTGAA GCCTCAGAAG TGCCAGTTTA	1500
TGTCAAATTA ACCCGAGTG TGACCGATAT CGTTACTGTC GCAAAAGCTG CAGAAGATGC	1560
GGGAGCAAGT GCGTTGACCA TGATCAATAC TCTGTTTGA ATGCCCTTTG ACCTCAAAAC	1620
TAGAAAACCA ATCTTGGCCA ATGGAACAGG TGGAAATGCT GGTCCAGCAG TCTTTCCAGT	1680
AGCCCTCAAA CTATCCGCC AAGTTGCCCA AACACAGAC CTGCTATCA TTGGAATGGG	1740
AGGAGTGGAT TCGGCTGAAG CTGCCCTAGA AATGTATCTG GCTGGGCGAT CTGCTATCGG	1800
AGTGGAAACA GCTAATCTTA CCAATCCTTA TGCCCTGCCT GACATCATCG AAAATTTACU	1860
AAAGCTCAGT GATAAATACG GTATTAGCAG TCTGGAAGAA CTCCTCAGG AAGTAAAGAA	1920
GTCTCTGAGG TAAACTGCAA TCAATCTGTT CTGATTTTT TATTAGTTTG TAATATGAAT	1980
TTAGGAGAAT TTTGTACAA TAAATFAAT AAGAACGAG GAAGAAGGTT AATGAAGAAA	2040
GTAAGATTTA TTTTTTTAGC TCTGCTATTT TTCTTAGCTA GTCCAGAGGG TGCAATGGCT	2100
AGTGATGATA CTGGCAAGG AAAACAGTAT CTGAAGAAG ATGCCAGTCA AGCAGCAAAAT	2160
GAGTGGGTTT TTGATACTCA TTATCAATCT TGGTTCTATA TAAAAGCAGA TGCTAACTAT	2220
GCTGAAAATG AATGGCTAAA GCAAGGTGAC GACTATTTTT ACCTCAAAATC TGGTGGCTAT	2280
ATGGCCAAAT CAGAATGGGT AGAAGACAG GGAGCCTTTT ATTATCTTGA CCAAGATGGA	2340
AAGATGAAAA GAAATGCTTG GGTAGGAAT TCCTATGTTG GTGCCACAGG TGCCAAAGTA	2400
ATAGAAGACT GGGCTATGA TTCTCAATAC GATGCTTGGT TTTATATCAA AGCAGATGGA	2460
CAGCACGAG AGAAGAATG GCTCCAAATT AAAGGGAAGG ACTATTATTT CAAATCCGCT	2520
GGTATCTAC TGACAATCA CTGGATTAAT CAAGCTTATG TGAATGCTAG TGGTGCCAAA	2580
GTACAGCAAG GTTGGCTTTT TGACAAACAA TACCAATCTT GGTTTTACAT CAAAGAAAAAT	2640
GGAAACTATG CTGATAAGA ATGGATTTTC GAGAAATGTC ACTATTATTA TCTAAAATCC	2700

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GGTGGGTACA TGGCAGCCAA TGAATGGATT TGGGATAAGG AATCTTGOTT TTATCTCAAA	2760	
TyTGATGGGA AAATGCTGA AAAAGATGG GTCTACGATT CTCATAGTCA AGCTTGGTAC	2820	
TACTTCAAAAT CCGGTGGTTA CATGACAGCC AATGAATGGA TTTGGGATAA GGAATCTTGG	2880	
TTTTTACCTCA AATCTGATGG GAAATAGCT GAAAAAGAAT GGTCTTACGA TTCTCATAGT	2940	
CAAGCTTGGT ACTACTTCAA ATCTGGTGGC TACATGGCGA AAAATGAGAC AGTAGATGGT	3000	
TATCAGCTTG GAAGCGATGG TAAATGGCTT GGAGGAAAAA CTACAAATGA AAATGCTGCT	3060	
TACTATCAAG TAGTGCCTGT TACAGCCAAT GTTTATGATT CAGATGGTGA AAAGCTTCC	3120	
TATATATPCGC AAGGTAGTGT CGTATGGCTA GATAAGGATA GAAAAAGTGA TGACAAGCGC	3180	
TTGGCTATTA CTATTCTTGG TTTGTCAGGC TATATGAAAA CAGAAAGATT ACAAGCGCTA	3240	
GATGCTAGTA AGGACTTTAT CCTTATTAT GAGAGTGATG GCCACCGTTT TTATCACTAT	3300	
GTGGCTCAGA ATGCTAGATT CCCAGTAGCT TCTCATCTTT CTGATATGGA AGTAGGCAAG	3360	
AAATATTATT CGGCAGATGG CCTGCATTTT GATGGTTTTA AGCTTGAGAA TCCCTTCCCT	3420	
TTCAAAGATT TAACGAGGCG TACAAACTAC AGTCTGAAAG AATTGGATAA GTATTATTAGT	3480	
TTGCTAAACA TTAACAATAG CTTTTGGAG AACAAAGGCG CTACTTTTAA GGAAGCCGAA	3540	
GAACATTACC ATATCAATGC TCTTTATCTC CTTCGCCATA GTGCCCTAGA AAGTAACTGG	3600	
GGAGAAATGA AAATTGCCAA AGATAAGAAAT AATTCTCTTG GCATTACAGC CTATGATACG	3660	
ACCCCTTACC TTTCTGCTAA GACATTTGAT GATGTGGATA AGGGAATTTT AGGTGCAACC	3720	
AAGTGGATTA AGGAAAAATTA TATCGATAGG GGAAGAACTT TCCTTGGAAA CAAGGCTTCT	3780	
GGTATGAAATG TGGAAATATG TTCAGACCTT TATTGGGGCG AAAAAATTGC TAGTGTGATG	3840	
ATGAAAAATCA ATGAGAAGCT AGGTGGCAAA GATTAGTACT ATAAGTGAAT ATGATTTTGAG	3900	
TGAATAGTAA GTTAAAAATC CTGATTTCAA GTAAAAATCAG GATTTTTTCA TGGATGCAAT	3960	
TTTTTTGGAG TCTGTGTGTA CCGGAGGGGT CTTTTGTCTT GTGTAAATGA CAAAGCCGGG	4020	
TTTTTCCACCA GTTGGTTTAT TGAGTTTTTT GACTTCAATC ATATCTACCT GCACCAGATT	4080	
CGACAGGCGC CCTTGGAGAA AGTAGGCAGC TAACTCTGCT GCCTCTGTCT TGAATGCAATC	4140	
AGATGGGTCA AGATTTCTCT AGATGACAAC ATGGCTTCCA GGAATGTCTT TAGCATGGAA	4200	
CCAAAGTTCC TCCTTGGGG CCATTTTAAA GGTCAATTCC TCATTTTGAA GATTGTTTCG	4260	
TCCGACATGA ATGATGGTTT TGCCATCGCT TGCTAGATAT TGTCTAGATT TTTTGGCTTT	4320	
CTGGATTTC TCCCGTTGTC TTCTGCGGAT AAAACCTGTT TGAATCAATT CTTACGGAT	4380	
TTCAAGCGATT TCTTCCAGTC CAGCTTGGTT GAGGACGGTT TCTACACTTT CCAGATAGAG	4440	
AATAGTGCT TTTGGTTCTT CAATCAAAATC AGTCAAGTAT TTGACAGCTT CTTTGAAGTT	4500	

CTGATACCGT	TTAAATAGC	GTTCGGCAT	CTCGTTGGGA	CTCAGAGCCT	TATCAAGCGC	4560
AATCATGATA	GGTTGGTTGG	TATAGTAGTT	GTCTAGGATA	ACCTGGTCTT	GGTCGTTAGG	4620
CACCTGGTGG	AGGAAGGTTG	TCAGCAATTC	TCCTTTTGA	CGAAATCTCT	CAGCGTTGTC	4680
TGTCGCCAGT	AACCTCTTTT	CTGTGTTTTT	GAGTTTGTGT	CGGTTTTTCT	GAAGTTCAAT	4740
TTCAACACGA	CGAATCAGTT	CACTGGCCTG	CTGTTTGACG	CGGTCGCGCT	CAGCCTTATC	4800
CTTATAGTAG	GTGTCCAAAC	AATCAGAAAG	ATTTCAGAAA	GGCTCTCCCA	CCTGATTTCG	4860
AAAAGGAAC	GGATGGAAG	AAGTCTCAGT	CAAGCATGGC	TGGTTTCTCT	GATTGAAAAA	4920
ATTTCCGAAA	GCGGAAAGTT	TTTCACTAAC	CAGTATCCCT	TCCAATTTCAT	TTGCCGTATC	4980
GCGTCCACGA	CCTTGAAAGA	GGCTTTGAAG	ATTTTTTGCT	GTTAGTTCCT	GGGTTTGAG	5040
GATTTCAAAG	AGCTTTTCAT	CCTTGATAGT	AAAAGGATTG	AGAGATTTTG	TACTTGCGCG	5100
AGCGATATAG	GTGATCCTG	GAAGTAAGGT	GCGGTAGCTA	TTTTTGAAA	AGCCGACGTG	5160
TTTGATAAAT	TCGAGGATTT	TATGACTGCT	TTTATCGACC	AGTAGAATAT	TACTGTGTTT	5220
CCCAATAAAT	TCGATAAACA	AGGTAGCCTG	GATATGGTCT	CCAATCTCGT	TTTATATGGA	5280
AACTGTAAAT	TCCACAATAC	GGTCATTTTC	CACTTGCTCA	ATCGACTCAA	TCAGGGCCCC	5340
CTGCAAAATC	TTTCTCAAAA	CAATGATAAA	GGTAGAAGGT	TGAGCTGGAT	TTTCAAAAGT	5400
CGTTTGGGTC	AGCTGAATGC	GTCCAAAATC	TGGATGGGCA	GAAAGGAGCA	GCGGATGGCT	5460
TTGGCGATTG	CTGCGGATTT	GCAAGACCAA	CTCTTGTTCA	AAAGGCTGAT	TGATTTTCTG	5520
GATGGGACCA	TTCACTAAAT	CGCTTCOCAA	TTCTCAACT	ATGCTGGTGA	AAAAAAATCC	5580
GTCAAAATGAC	ATCGTCTCTCT	CCTTGATGAT	GTATTCATA	GTATTATATC	AAAAAGGTAG	5640
AATAAAATCA	TGGAAATGTG	GTATAATAAA	GCCAGTAAA	GAGAAACGAG	AAGCACATGT	5700
ATATTGAAAT	GGTAGATGAA	ACTGGTCAAG	TTTCAAAAGA	AATGTTGCAA	CAAAACCAAG	5760
AAATTTTGGA	ATTTGCAGCC	CAAAAATTAG	GAAAAGAAGA	CAAGGAGATG	GCAGTCACTT	5820
TTCTGACCAA	TGAGCGTAGT	CATGAACCTA	ATCTGGAGTA	CCGTAAACAC	GACCGTCCGA	5880
CAGATGTCTAT	CAGCCTTGAG	TATAAACCCAG	AATTGGAAT	TGCTTTTGAC	GAAGAGGATT	5940
TGCTTGAAAA	TTCAGAAATTG	GCAGAGATGA	TGCTCTGAGTT	TGATGGCTAT	ATTGGGGAAT	6000
TGTTCACTCT	TATCGATAAG	GCTCATGAGC	AGGCCGAAGA	ATATGGTAC	AGCTTTGAGC	6060
GTGAGATGGG	CTTCTTGGA	GTACACGGCT	TTTTACATAT	TAAACGGCTAT	GATCACTACA	6120
CTCCGAAGA	AGAAAGCGAG	ATGTTGGGTT	TACAAGAAGA	AAATTTTGACA	GCCTATGGAC	6180
TCACAAAGACA	ATAAACGAAA	ATGGAAAAAT	CCTGACTTGA	TATCCAGTTT	AGAAATTGGCT	6240

330

TTGACAGGTA TTTTACTG C TATCAAGGAA GAACGCAATA TCGAAACA CGCAGTACG	6300
GCTCTAGTGG TCATCCTTGC AGGTTTGT TTTCAGGTGT CACGAATCGA ATGGCTCTTT	6360
CTCCTATTGA GTATTCTCT GGTAGTAGCC TTTCAGATTA TCAACTCTGC TATTGAAAT	6420
GTGGTGGATT TGGCCAGTCA CTATCACTTT TCCATGCTGG CTAAAAATGC CAAGGATATG	6480
GCGGCCGCG CGGTATTAGT GGTTCCTCT TTGCGACCTT TAACAGCGCG ATTGATTTTT	6540
CTCCACGAA TCTGGGATTT ATTATTTTAA ACAGTAAGAG GAAATTATGA CTTTTAAATC	6600
AGGCTTTGTA GCCATTTTAC GACGTCCCAA TGTGGGAAG TCAACCTTTT TAAATCACTG	6660
TATGGGCAAA AAGATTGCCA TCATGAGTGA CAAGCGCGAC ACAACGCGCA ATAAAAATCAT	6720
GGGAATTAC ACGACTGATA AGGAGCAAA TGTCTTTATC GACACACCGA GGATTACAAA	6780
GCTTAAACA GCTCTGGGAG ATTTTCATGTT TGAAGTCTGC TACAGTACCC TTCGCGAAGT	6840
GGACACTGTT CTTTTCATGG TGCTGCTGA TGAAGCGGT GGTAAAGGGG ACGATATGAT	6900
TATCGAGCGT CTCAGGCTG CCAAGTTCC TGTGATTTTG GTGTGAATA AATCGATAA	6960
GGTCCATCCA GACCAGCTCT TGTCTCAGAT TGATGACTTC CGTAATCAAA TGGACTTTAA	7020
GGAAATTGTT CCAATCTCAG CCCTTCAGGG AATAACGCT TCTGCTAG TGGATATTTT	7080
GAGTGAAAT CTGGATGAAG GTTTCATAA TTTCCGCTCT GATCAATCA CAGACCATCC	7140
AGAAGCTTC TTGTTTTCAG AATGGTTCC CGAGAAAGTC TTGCACCTAA CTCGTGAAGA	7200
GATTCGCGAT TCTGTAGCAG TAGTTGTTGA CTCTATGAAA CGAGACGAAG AGACAGACAA	7260
GTTTCACATC CGTGCAACCA TCATGCTGCA GCGCGATAGC CAAAAAGGGA TTATCATCGG	7320
TAAAGGTGCG CTTATGCTTA AGAAAATCGG TAGCATGGCC CCGTGTGATA TCGAACTCAT	7380
GCTAGGAGAC AAGTCTTCC TAGAAACCTG GGTCAAGTTC AAGAAAAACT GGCCTGATAA	7440
AAAGCTAGAT TTGGCTGACT TTGGCTATAA TGAAGAGAA TACTAAGTAG AGGTAGGCTC	7500
ATGCTCTGCT CTTGTTTTTA CAGAAGGAGC ACTTATGCTT GAATTACCTG AGGTTGAAAC	7560
CGTTTGTGCT GGCTTAGAAA AATTGATTAT AGGAAAGAAG ATTTCAGATA TAGAAATTCG	7620
CTACCCCAAG ATGATTAAGA CGGATTGGA AGAGTTTCAA AGGGAATTGC CTAGTCAGAT	7680
TATCGAGTCA ATGGGAAGTC GTGGAAAATA TTTGCTTTTT TATCTGACAG ACAAGGCTCT	7740
GATTTCCCAT TTGCGAGTGG AGGGCAAGTA TTTTACTACT CCAGACCAAG GACCTGAACG	7800
CAAGCATGCC CATGTTTCT TTCACTTTGA AGATGGTGGC ACGCTTGTTT ATGAGGATGT	7860
TGCGAAGTTT GGAACCATGG AACTCTTGT GCTGACCTT TTAGACGTCT ACTTTATTTT	7920
TAAAAAATTA GGTCTTGAAC CAAGCGAACA AGACTTTGAT TTACAGGTCT TTCAATCTGC	7980
CCTTGCCAAG TCCAAAAAGC CTATCAAATC CCATCTCTTA GACCAGACCT TGTAGTCTGG	8040

ACTTGGCAAT	ATCTATGTGG	ATGAGGTTCT	CTGGCGAGCT	CAGGTTTCATC	CAGCTAGACC	8100
TTCCCAAGACT	TTGACAGCAG	AAGAAGCGAC	TGCCATTTCAT	GACCAGACCA	TTGCTGTTTT	8160
GGGCCAGGCT	GTGAAAAAG	GTGGCTCCAC	CATTCCGACT	TATACCAATG	CCTTTGGGGA	8220
AGATGGAAAC	ATGCAGGACT	TTCATCAGGT	CTATGATAAG	ACTGGTCAAG	AATGTGTACG	8280
CTGTGTAC	ATCATTGAGA	AAATTCAACT	AGCGGACGT	GGAAACCCT	TTGTTCAAA	8340
CTGTCAAAG	AGGGACTGAT	GGGAAAAATC	ATCGGAATCA	CTGGGGGAAT	TGCCTCTGCT	8400
AAGTCAACTG	TGACAAATTT	TCTAAGACAG	CAAGGCTTTC	AAGTAGTGA	TGCCGACGCA	8460
GTCTGCCACC	AACTACAGAA	ACCTGGTGGT	CGTCTGTTTG	AGGCTCTAGT	ACAGCACTTT	8520
GGGCAAGAAA	TCTATTCTGA	AAACGGAGAA	CTCAATCGCC	CTCTCTAGC	TAGTCTCATC	8580
TTTTCAAATC	CTGATGAACG	AGAATGGTCT	AAGCAAATTC	AAGGGAGAT	TATCCGTGAG	8640
GAACCTGGCTA	CTTTGAGAGA	ACAGTTGGCT	CAGACAGAAG	AGATTTTCTT	CATGGATATT	8700
CCCCACTTCT	TTGAGCAGGA	CTACAGCGAT	TGGTTTGCTG	AGACTTGCTT	GGTCTATGTG	8760
GACCGAGATG	CCCAAGTGA	ACGCTTAATG	AAAGGGGACC	AGTTGTCCAA	AGATGAAGCT	8820
GAGTCTGGT	TGGCAGCCCA	GTGGCTTTTA	GAIAAAAAAG	AAGATTTGCG	CAGCCAGGTT	8880
CTTGATAATA	ATGGCAATCA	GAACAGCTT	CTTAATCAAG	TGCATATCCT	TCTTGAGGGA	8940
GGTAGGCAAG	ATGACAGAGA	TTAACTGGAA	GGATAATCTG	CGCATTTGCT	GGTTTGGTAA	9000
TTTTCTGACA	GGAGCCAGTA	TTTCTTTGGT	TGTACCTTTT	ATGCCCATCT	TCTGGAAAA	9060
TCTAGGTGTA	GGGAGTCAGC	AAGTCGCTTT	TTATGCAGGC	TTAGCAATTT	CTGTCTCTGC	9120
TATTTCCGGC	GCGCTCTTTT	CTCTATTCTT	GGGTATTCTT	CTTGACAAAT	ACGGCCGAAA	9180
ACCCATGATG	ATTGGGGAC	GTCTTGCTAT	GACTATCACT	ATGGGAGGCT	TGGCCTTTGT	9240
CCCAATATC	TATTTGGTTAA	TCCTTCTTTC	TTTACTAAAC	GGTGATATTG	CAGGTTTTGT	9300
TCCTAATGCA	ACGGCACTGA	TAGCCAGTCA	GTTTCCAAAG	GAGAAATCAG	GCTCTGCCCT	9360
AGGTACTTTG	TCTACAGCGC	TAGTTGACAG	TACTCTAACT	GCTCCCTTTA	TTGGTGGCTT	9420
TATCGCAGAA	TTATTTGGCA	TTCTTACAGT	TTTCTTACTG	GTGTAGATT	TTCTATTTTT	9480
AGCTGCTATT	TTGACTATTT	GCTTTATCAA	GGAAGATTTT	CAACAGTAG	CCAAGGAAA	9540
GGCTATTCCA	ACAAAGGAAT	TATTTACCTC	GGTTAAATAT	CCCTATCTTT	TGCTCAATCT	9600
CTTTTTTAACC	AGTTTGTGCA	TCCAATTTTC	AGCTCAATCG	ATTGGCCCTA	TTTTGGCTCT	9660
TTATGTACGC	GACTTAGGCG	AGACAGAGAA	TCCTCTTTTT	GTCTCTGGTT	TGATTGTGTC	9720
CAGTATGGGC	TTTTCCAGCA	TGATGAGTGC	AGGATCATG	GGCAAGCTAG	GTGACAAGGT	9780

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GGCAATCAT CGTCTCTGG TGTGCGCCCA GTTTTATPCA GTCAATCATCT ATCTCCTCTG	9840
TGCCAATGCC TCTAGCCCC TTCAACTAGG ACTCTATCGT TTCTCTCTTG GATTGGGAAC	9900
CGGTGCTTG ATTCGCGGG TTAATGCCCT ACTCAGCAA ATGACTCCCA AAGCCGGCAT	9960
TTGAGGGTC TTGCTTTCA ATCAGGTATT CTTTTATCTG GGAGGTGTTG TTGGTCCCAT	10020
GGCAGTTCT GCAGTAGCAG GTCAATTTGG CTACCATGCT GTCTTTTATG CGACAAGCCT	10080
TTCTGTGTCC TTAGTTGTC TCTTTAACCT GATTCAATT CGAACATTAT TAAAAGTAAA	10140
GGAAATCTAG TGCAGATAA AATCAATCTC AAATGCTCT CTGTGGCAG TATCAATTAC	10200
CTAACCACTA AAAATCAAA AACCCATCCA GACAGATTGA	10240

(2) INFORMATION FOR SEQ ID NO: 33:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 13206 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 33:

CGCTTTATCG TGGACGTGGT CAAGCCGAGA ATTTTCATCAA GGAGATGAAG GAGGATTTT	60
TTGGGGATAA AACGGATAGT TCAACCTTAA TCAAAAACGA AGTTCGTATG ATGATGAGCT	120
GTATCGCTTA CAATCTCTAT CTTTTCTCA AACATCTAGC TGGAGGTGAC TTCCAACTT	180
TAACAATCAA ACGCTCCGC CATCTTTTTC TTCACGTGGT GGGAAAATGT GTTCGAACAG	240
GACGAAGCA GCTCCTCAA TTGCTAGTC TCTATGCTTA TTCCGAATTG TTTTCAGCAC	300
TTTATCTAG GATTAGAAAA GTCAACCTGA ATCTTCCTGT TCCTTATGAA CCACCTAGAA	360
GAAAAGCTC GTTAATGATG CATTAAGAA CAGTCGAGAT GAAAAAATCG TGTGACGCAC	420
CAAGGAGGA GTCTGCCCTT TTGAGGAAT CTAGCGAGGA AAAACGATAC TGGAAACGCA	480
GAAAGTAAA CTGACCTCAT GAGGAGGAAG AAAGTGGCTC ATGAGGTCAG GGGTTTGTGA	540
AGTTACATCT AGTTGAGAA GGTATGAATG ATTTGGGATT AATCATTTCT TGTTTTAAAT	600
CAGGAGATA GTAACGATTT TTTCTTTTT TGACGAATC TATTCGGTAA CGATCAATCA	660
ATTTAATCAT GTACCTAATA TTAGAATTGT TTAATCCAAA TTTATTGAA AGCTTCCTCA	720
AGCTATATCC TTGTTTTCTA AGTTCATAGA TCTGAACCTT ATCATCATAA GTTAGTTTCA	780
TAAATAAAAC ACCCAAAG TTAGATTTTT TCTGTCTAAC TTTTGGGGG CAGTTCATTC	840
AACACCTGAT ACTATGCGTT TTTCTTATTT GAAATACTTT TTAATCAACC TCTTTTAACT	900
CAATGAAAAA CAAAGTGCAA ACTAGAAAGC TAGCCTCAGG CTGCTCAAAA CAGTGTTTTG	960

AGGTTGCAGA	TGGAAGCTGA	CGTGGTTTGA	AGAGATTTTC	GAAGAGTATT	ACTTAATCTT	1020
CTTGATACTT	TGACTAAGAA	TAAATCCTAC	AATCATCCCT	ACCATTATTT	GCATAAAAT	1080
CGGTAGAATT	CTGGGAGGG	CTGCTGCCCA	GCCATTTCATC	AAAGCAGAAC	CCAAGGCGTA	1140
GCCTCCTACC	ATGGCAATAG	TTGCTAAAAT	AAGGCCTAAC	CACTGACTTT	TTCTTTTAAA	1200
TCCTGCGAAA	AACTCCCTGCA	AGCCATGGTT	GACCAAGCTA	AAGAACATCC	ACTGAGGGTA	1260
GCCTGATAAG	AGGTCAATCA	AGAAACTTGC	TAGTCCTCCG	ACTACCGCTC	CTTCACGACT	1320
ACCAAGGTAA	AAGGCCGCAA	AGAAGACACC	AGCATCTAAA	AGAGTTAGAA	TTCTGTAGG	1380
TGTTGGGATT	TTTAAGAAAT	AACCTAGAAC	CACAGAAAGG	GCGGTTAATA	GGGATACAAG	1440
GGCGATTTTA	GTGTTTTTG	TTTGCTTCAT	ATTGTCCTAC	TCCATACCTGA	TCTGCTTGTG	1500
CAATAGCACG	ATAAACGAAA	GCCTTAGAGC	TTTCTACTGC	TGCAAAAGT	TTATCACCTT	1560
TAACCAAGTG	ACTGGCAATG	CTAGAGCAA	AGGTACAACs	TGCACACGA	TTTTGGCCTT	1620
GGATAACTGG	ATTTCTTAGG	ATAGTAAAGG	TCTGTCCATC	ATAAAGACA	TCCACAGCCT	1680
TGTCCTGACT	AAGACGATTG	CCTCCCTTGA	TAATGACTGT	GGCGCTCCTA	AATCATGCAA	1740
TTTCTGCGCT	GCAGTTTTCA	TGTCTTCCAA	GGTTTTAATT	TCTTGACCGG	ATAATAATT	1800
TGCTTCTGGG	AGATTAGGCG	TAATCACACT	GACATAAGGG	AAAAAGCGAA	TCAACTCTTG	1860
GCAGAGCTCA	CTGACAGCTA	CATCATGCGT	TTCTTTCGAG	ACCAAGACAG	GATCCAACAC	1920
CACAGGTACT	CCTGGGCGTT	GTTTGATAAA	GTCCAAGGCC	TTCTCAGCCA	CGCTGACAGT	1980
AGGGAGAAGA	CCAATCTTAA	TTCCCCCAAA	TTCCACATCA	CGCAAGCTAT	CTAATTCTAG	2040
TTGAAAAATG	GTATCATCAG	TTGGAAAGAC	TTCAAACTCT	TTTTCTGTCA	AGGCTGICAA	2100
ACAAGTCACT	GCTACAAACC	CATGCAAGCC	GTTCAAGGTA	TAGGTAGCCA	AATCAGCTGA	2160
CAGTCCACCA	CCACTAAAAA	TATCATTTCC	AGAAAGTGCT	AAATACGAT	TATTTCTCAT	2220
AACGAATCTC	CTTTAAATAC	AAACCATTTG	GTGCTGCAGT	GGGACCTGCA	AGTTCCTGT	2280
CCTTCTTCTC	CAAGATGAGA	TCAATCTGCT	CTACTGGCAT	GGGTTGTGTA	CGATTTTTGA	2340
GAAGAGTCCC	CACCATATTG	CGAATCTGTT	TATACAAGAA	ACCATTTCCT	GAAGAAGTAA	2400
AGGTCAAJAA	TTGTCTCTTC	TCAATGACTA	TTAAACTAGC	TTCTGTGATG	GTGCGAACCT	2460
TATCTCTTAC	ACTAGTCCCA	GAGGCTGTAA	AACCGGTAAA	ATCATGGGTT	CCCTCTAGCT	2520
TTTTGATTGC	AATCTGCATT	CCTTCCACAT	CGAGTGGGTA	GGGAAAGTGG	GTGGCATAGT	2580
GACGCGCAT	CGGATTTTTG	GGAGCTCTCT	TATCCACAGT	AAACTCATAG	GTCTTGCTAT	2640
GCTTGGCATA	ACGGCAATGA	AAATCATCTG	CCACAAGCTC	AATCGAAATC	ACATCAATAT	2700

		334	
CTTCAGGAGA	CTGGGTATCC	AAGGCAAAAC	GGAGTTTCTC
GGTCAAAATG	AATCACCTGT	CCCAGGGGAT	GAACCCCACT
GAACAGTAAT	GGCTTGCCCT	TTATTTAATC	TGGTCAAGGT
CGCTACCCGC	ATGAGGCTGG	CGGTGAAGGC	CAGCAAGGC
TTGCTTTATA	TCTGTCATA	GCCTCTATTT	TATCAAGAAA
TAAAACAAAT	ATTGTATGGG	TATAAAAATC	TCATFACTCTT
GTCAATTTC	ATCTGCAACC	TCAACACACT	ATTTTGAGCA
AGTAGATTGA	AATAAGATAT	GAACAACTCT	ATTAGGAAG
ATTTTAGCAG	CTACAGCGTA	CTATTCCAAA	CTCAATCAAC
TCATTGAGTA	TCAAAAGAAA	AACTTAGGAA	TCAATCCTAA
CATGACAAAG	ATAGAGATTGA	CAATCAACCA	ACCTCCTAAG
ATTGTGAGTT	AGTAAGCCAA	TTGCACCTAG	AACGAATGGG
ACAGCCTAAT	ACAGCAAAATG	AAGTTGCTTG	ATTGAGGAGT
GACAAGTTGA	AAGACCGTCG	TCAAGACTAC	ACTATAGCCA
TGCTACTACC	ACCCACAAGG	ATGAAGACAA	GGCAATCAGC
AATACCAAGC	CAGAGGAGCA	GTTCCTCTTT	AAAGATAGAA
CCCAGGCCA	ATCCCGATCA	ACTGCATGAT	ACTAAGAACA
CCCAATCCT	CTTTCCACCA	TCAAACTTGG	AATACGGATG
AACTACAAT	GCCGCTTCCA	TAGCTAAGGT	AAAAATCAAG
ACGACTTGCT	TCCTTCGCTC	TTTCTTGAC	TTCTTTCTTT
GAGCAGATAA	AGGGGAGCA	CCAAAATCC	AGCACATATAG
ACCAAAGGCC	AACAACCTGAC	CGACGGCCAA	GGTAATGAGA
AGAAAGCGGT	AGCCCTAACA	TCTGAATTGG	CCTTTTCTCT
AGAAATGGCC	TTGGCAATTGA	TCAATCCCAAG	ACCCAAACCA
GACAAAGGGA	TAGGCTTGGT	ACCAGAAGGG	AGCTGTACGC
GCCCAACTA	ATCTGTAAAG	GCTCAGGAAA	TATTTTTTCT
CATCATCATG	ATTCCAAAGG	AAGGCAAGCT	CACCAAGAGC
ACCCGTGATA	TAGTCAAAACA	TGGCTGGTAG	GGCACTCGAA
AACGAGGGAG	AGAGCCAAJA	TGCTGGCCCG	TTCTAAAAAT
TATATTTCTC	TAAATCTCT	ACTTTTGTGA	TAGTTATCAA

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4500

CCCTCATIGGT	TGTGACTC	CTTCTTAAAT	TCGAAATGA	ATCCCTTCGA	TCTTATACTC	4560
AATGAAATC	AAAGAGCAA	CTAGGAAGCT	AGCCGCAGGT	TGTTCAAAC	AGTGTTTTGA	4620
GGTTGCAGAT	GGAACTGAC	GTGTTTGA	GAGATTTTCG	AAGAGATTA	GGATGACTTT	4680
CTCTTGATTT	GCTTGATAA	GTAGAAAATA	AATCCTGCTA	CCATATAGGC	AACAAGATA	4740
ATCAGACACC	ACTTAACAC	AACATTCCAA	CCCTTGTTCA	CATTCAAAA	GAGTAAGGG	4800
AAAGGATTAT	CCTTGCCATT	TGGAATATTG	AGTTTAGAA	CCAGCCATT	AAAAAGAGCA	4860
AACATCATAT	ACAGAAAGGG	TAAAAATGTC	CACACTGCTC	GATCCCAAT	CTTGATTGA	4920
CCCTGTTTGT	CAAAAAGAG	GGTATCCGCT	AAAAACAGA	TGGGAACGAT	ATAGTGGCAA	4980
AGGAAATTTT	CTAGGGTATA	GAAATTAGTC	GCAATGGGCG	CCAGAGGAA	ATGGTAAATC	5040
ACACAGGTAA	TCATGATACT	CATGGTGACC	CCACCTTTTA	AGCGCAAGAG	ACTTGGCCTT	5100
TGCCAATFTT	CACCTACAGC	GCTCATACC	TTTAGAAGAT	AAAGGTAAA	AATAGTTACC	5160
AAGAGGTGG	ACAGAACCCT	GTAATAGAGA	AGCATCCCAA	AACCACCATG	CTTAGTAAT	5220
TCAAGATAAA	CTCCGTAAA	AGCCGCTAGA	AACAAGAAGA	TACGCTATA	AAATACAAGT	5280
TTATAGTGTT	TTGACATGCT	TAAATCTTCC	TCACAAACTC	TGATTTAAGT	TTTATGGCAC	5340
CAAAACCATC	AATCTTACAG	TCGATATTGT	GGTCGCCTTC	TACGATGCGG	ATATTTTTCA	5400
CGCGGTCCCC	TTGTTTCAAA	TCTTTTGGCG	CACCTTTTAC	TTTCAAGTCC	TTGATGAGAG	5460
TTACTGTATC	ACCATCAGCC	AATTTATTTC	CGTTGGCATC	GATAGCGACA	AGACCTTCTT	5520
CTACTTCTGC	AATCTCAGCA	GGATTCCACT	CATGAGCACA	CTCTGGGCAA	ACCAGTAGGG	5580
CACCGTCTTC	GTAGACATAC	TCTGATTTAC	ATTTTGGACA	ATTTGGTAAA	TTGTTCAATG	5640
TTTCTCCTTA	TCATCATTTA	CTATTCTTTG	AAAAATCAAA	TTTCTCGAAC	AGCAACTATT	5700
ATACCTTAAA	ATCAGCATTT	TGACAAATTT	AGAAAAAAC	GATATCAAT	CTATCGGCTT	5760
TTCTACATTT	ACATTTCTTTT	TTTACGCTTCT	GCTTTGATTT	TTTCAACTAC	TTCTTGAATG	5820
TTCAACACAG	TTGTATCAAG	GTAGACAGCA	TCTCTGCTTT	TTTGAAGAG	AGAAGTCTCA	5880
CGATGACTAT	CCTTGATGTC	ACGCGCAGCA	ATTTCTCTTT	TTAGGGTTTC	AAGGTCTGTT	5940
TCAATTCCTT	TGGCAATATT	TTTCTTGTAA	CGAGCTCTG	CTCTCTCATC	ACAGAAAGCT	6000
ACTAGGAAAA	TTTTCAATTC	TGCTTGTGGC	AATACAACAG	TTCCAATATC	GCGACCATCC	6060
ATGACAAATC	CGCCTTGTCT	GGCAATTTCT	TGTTGGAGAG	AAACCAATTT	CTCACGCAT	6120
TGAGGAATTG	CTGCAATAGC	AGAAACATGA	TGTTGTCATT	CATTTTTCACG	GATAGGATGG	6180
GTAATATCCA	CATCTCTTAC	AAAAACAAGC	TGGTCTCCAG	TTTCTGAACG	TCCAAAGCTG	6240

ATTGGATGCT GGTCCAACAA GGCTAGAAGG GCTTCGACTT CTTCAACTCC TAATTGGTTT	6300
TTAAGA/GCCA TATAGGTCCG TGCACGATAC ATAGCTCCTG TATCAAGCTA GGTGAATCCA	6360
AAATCCTTAG CAATAATCTT TGCACCGTA CTCTTACCGC TGGAAAGCAG ACCATCAATA	6420
GCAATTTGAA TTGTTTTCAT ATCGGCTCCT ATTTTATTTT TATAACATCA CTGGATTAG	6480
CAACCAAGA TCCTGTGACC ATGTGCCAGG GATTCAAGGC CTCTAACTGA GCAATGGAGA	6540
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CAGGATTAGC AGCTTCTTCT GAACTACTAG AAGTAGATTC TGCTCTGAA CTCTGCTCAG	6660
GCTGAGAACT ACTTGAAGAT GAGATTGTGA CTACACTGGC ATCAGAATCA TGAAGCCCTT	6720
TTAAGGCTGC TGTGCGATTA CTCCCCCTCG ATGATAGATA GATGAGAAGC ATGACCATCA	6780
CCACCACAAT TACAAGAAA ATACTAGCTA GGATCGTCAA AATACGATTA GCCATCTTAT	6840
CAGCCCCCTC GTGGTTTCGA TGCCGACGCT CTGCTCTTGA TTCTTTTGA TCATAGATAT	6900
CTTCCTTGCCA CGGTTCCTTT GCCATACCTT ACTCCTTGTT TTTTCTTACT TTTCCTATTA	6960
CAATATAAAT ATGAACATGA AAATCACACT TATACCTGAA CGATGTATCG CCTGTGGGCT	7020
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TGACCTTGAC CAACTGGAAA AAGAAATTC TCCTAGTCAG GATATCTTAG AGGCTGTAA	7140
AAATTGCCCC ACTCGGCCCT TGATTGGAAA CCAGGAAGCC TAAATCAATG GCGATAATCC	7200
ACTCCTCTTA GTTTAGCACA TTTCCATGTA AAATTATAGT CTTTTCACCT TATTTTTTTC	7260
TGTAAATCA GGAAGGTCACT TTTTTCCTTT GATAAGATA AGTGGTCTTT TTTTAGCTTC	7320
TAAATAAATC TTACTGATAT ACTTGCCGAG AATCCCAATG GTCAAGAGTT GAATGCCCTC	7380
AAGAAAGAGA ATAACAGCCA TCAGAGAGGT CCAACCAGAT GTCCGATTGC CCAJJAATGAG	7440
GGTCCGAACC ACAACAAAA AGGTCAATCAG CAGAGAAAAG AACAAGATA GGAGACCAGC	7500
TACAAGGCT ATAAATCAAG GAAAATCTGA AAAATTAAAT ATCCCTTCAA TGGAGTAGAA	7560
AJAGAGTTGC CTAAAACCTC AACTTGTCTT GCCAGCCTGC CTTCCTGACAT TTGGATAGTC	7620
CAAAATAGTAG GTTTTGAAC CCACCCAGGC GAAGAGCCCC TTTGAAAAC GATTGGACTC	7680
GGTCAAGCTT AAAATGGCAT CGACTACAGA CCTTCTCATC ATACCAJJAAT CACGACACCC	7740
CGACGGCAGA GCTACTGGGC TGATTTTTTG CATGAGGGGA TAAJAGAGA CAGCACAGAA	7800
ACTGCGAAG AAGGGTTCTC CTCCCGGACT AGTCTCCGT GTCCCAAGC AGTCCAAGTC	7860
TACATTTTTG TCTAATACAT TTTTCACTC AAACAACATA CTAGGAGGAT CTGAGGAGTC	7920
TGCATCCATC ACCACCACA AATCTCCTGT CGCATATTGC AAGCTGCAAT AAAGGGCTGC	7980
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GGCCTTTAAG AGTTCCAAGG TCCCATCACT TGATCCATCA TCGACAAAGA CATACTCGAT	8100
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CTAATTTTCC AACGGCTACT TGAGTCACAT ATGGCAAGAG ATTGTTTTGA ATACCGTTTG	8640
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CCATGGCTTT CAAAAGGCTG ACAGTTCCAG CGATATTGTT GTCATAGTAG GCAAGAGGGA	8940
TACGTGTTGA TTGCGCAACA GCCTTCAAC CAGCAAAAGT AATGACACCA GTCGGTTCTT	9000
CCTGCTGAA AATATCTCTG AGGGTATCTG TGTCAAGAT ATCTGCCTCA TAGAAAGGAA	9060
TCTCACTCC TGTGATTCTT TCAACAACCT CTAACCTCTT ACGATTGCTA TTGACAAGAT	9120
TATCCACAC AACAACTTGA TGACCTGCTT GGATCAATTC AATAACAGTG TGGGTTCCAA	9180
TAAAACCGC ACCACAGTT ACCAAAATCT TTTCTTGCTT CTTTTTCTT CGATTCTCAG	9240
ATTATTTTTT CTTATTTTAC CATTTTTCAG AGGGAATGTC ATTTGCCATC CTAAACTACC	9300
TGATAAAAT TCAGTAAAT GCTTATACTC TTCGAAATC CAATTCAAC TACGTCAACG	9360
TGCGCTTGCC ATGGGTATGG TTACTGACTT CGTCAGTTCT ATCCACAAC TCAAAACAGT	9420
GTTTTGAGCT GACTTCGTCA GTTCTATCCA CAACCTCAA GCAGTGCTTT GAGTAACCG	9480
CGGCTAGTTT CCTAGTTTGT TCTTTGATTT TTATTGAGTA TTATTGCTTT TTTACTCGTT	9540
TGACATAGTT TTCAATTGGG TAATTTAGAG GGTCCAAGT CAACTCCTTG TCTTGGATCA	9600
GTGGGCTAG ATGGTAACCA ATGATAGGAC CAGTTGTGAG GCCTGATGAA CCTAGTCCAC	9660
TGGCTGCATA GACACAGTT AAGTCAGGCA CTTGCCCAA GAAAGGAGAG AATCACTGG	9720
TGTAGCACAG GATTCCAACA CGCTCAGATT TTGAAGTAGC TTCAGCCAAA ATCAGATAGT	9780

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GAGTCAAGGT	GGCCTCCTCC	ATTTGTTGGA	GCAAGGTTTC	ATCTACCGTC	AAATCAAATC	9840
CCATGTGATT	TTCTGGGTA	GGCCTTAAGG	ATAATTTCCT	ACCTGCAAG	GGATCAAAAT	9900
CCCCTCCCC	TTCTGGCATG	ACAACAGGCT	AACTTTCAT	GTCTTGGGCA	AGCTGATAAT	9960
CTCGTAGTGT	TCCTTTTTGA	GGACGGACAT	CCACTTCMTA	ACCTAAAGGC	TCTAACATGT	10020
CCCCAACCA	AGCTCCCGTC	GCCAAAATAA	CTCTGCTCAA	CTCTCTTTCA	CCAATCTGGT	10080
AGCCTGATGC	TAACGGTGTG	AGAGTCACCT	TTTCTTTGAC	CAGCTTGACA	TGACTGACTT	10140
CCAGCAACG	AGTCACTAAA	AGTTGGCCAT	CTACTCTCGC	TCCACCAGAA	GCATAGAGCA	10200
GGCGTCAAA	TCCTCGCAAA	CCAGGGAATA	ATTCAATTAGC	TGAGGCTTGG	TTCAGAATGG	10260
CTAATTGCCC	TATCAAGGGA	GATTCTTCTC	TGCGCTGGAG	GGCCAGTTGA	TAAAGTTCTT	10320
CCAAATTGGA	TTCACTCCTT	TTCAAGAGAA	AGACTCCCGA	ACGCTGGTAA	AAGTCGATTT	10380
CTTGCTCTGA	TTTCTCTAAA	TCAGCTAATA	AATCCACATA	AAAATCAGCC	CCCCAGCGCG	10440
CCATCTTGTA	CCAGGCTTTA	TTACGGCGTT	TGGAAAACCA	AGGCACTGATA	ATTCTGCTGT	10500
CGCGCTTGGT	GGCTTGACCT	TGCTCATGGT	CAAAAACGCT	CACCTCTAGG	TCACCTTTCTC	10560
TCGAGAGGTA	GTAGGCAGCT	GTTCCTCCCA	CAATTCTGTC	TCCAAATAATG	GCAACTTTTTT	10620
TCATTGTCTT	CACCTTCTAA	CTAGATATGA	TGGAAAGGAT	TGGTTGATGC	CTGACTAGGC	10680
AAGATATCAA	TAGACCACCC	CTTATCTTCC	TTCCATTGAC	TAGAAAGTGC	TGCGATTTTTT	10740
TCTACAAAAA	TCACTTCGAT	ATAGTGACCT	GGGTCCAATG	CAAGCAACCC	ATCAGATAGC	10800
ATATCCTGAG	CAGTATGGTA	GATAGATACA	CCAGTGATAT	AGACATCTGC	CCCCTTTGCC	10860
AAAGCATCCT	TATAGAAAGA	CTGCCCGCTT	CCACCACAAA	TTGCTACTCT	TGAAATAGGC	10920
TTCTGCAAA	CATCCTCTTG	ATAATGCACC	ATTGGAAGGC	TATCTAGGTC	AAAGACTTGC	10980
TTGACCTGTT	GGGCCAATTC	CCAAAATGTC	TGAGGCTGAA	TATTCCCAAT	ACGTCCAATT	11040
CCACGTTCTG	GACCTGTTTC	CTGCAGATAA	GTGCTCTCCT	CGATTCTTAG	CATCTGACAA	11100
AACCACTCAT	TGAGCCCAT	TTCAACGATA	TCAATATTGG	TATGGCTGAC	ATAAACTGCG	11160
ATATCATGCT	TAATCAGGTC	GATGTAAATC	TGATTTTGCG	GACGCTTGCG	AAGCAAGTCC	11220
TTGATAGGAC	GAAAGTAGG	CGCGTGCTGT	ACGATATACA	AGTCCACACC	CTTTTCAATG	11280
GCCTCTGCCA	CTGTCTCTTC	ACGAATATCG	AGGGCACC	TGACCTTTTG	GATACCTTTG	11340
TCTAAGATGC	CAATTCTGAG	ACCAAGGCTG	TCTCCCTCCA	TAGAAAATTC	CTGAGGGCAA	11400
AAGGCTTCAT	AAGCTTGAT	CACCTCACCT	GCTAACATGG	AGCACCTCCT	TGATAGCTTG	11460
AATCTTATCT	ACTAGAACTT	GACGTTCTTC	CAGATTTTTT	TCTGGGATTT	GTCCGAGGGC	11520
GAACCTTAGC	TTCTCAGCTT	CTTTTTTGCA	TTTTTGAGCA	AATACTGGAC	TGACTTCTTT	11580

GGACAAGAAG GGACCAAAAG GAACATCACT GGCTGATAGC TTCATTTGTC CTGCTCCAC 11640
 CACCAAAATC TCATAAAACT TTCCAGCTTC TTCTAAGATG CTTTCTGCTA CAATCTGGAA 11700
 TCCATGATCC TGTAGCCAGA TACGCAAGTC GTCTTCACGA TTAATTGGGCT GGAGGATCAA 11760
 ACGCTCTACA TTAGCTAACT TCCCCAAACC TTCTTCTAAA ATCTAGACAA TCAACGACC 11820
 ACCCATGCCA GCAATGGTAA TGACAGACAC TTGGTCAGTC TCTTCAAAAG CTGCCAAGCC 11880
 ATTGGCTAAA CGGACTTGA TTTTCTCTCT TAGGCCGTGA GCTCAACAT TTTTAACCGC 11940
 AGACTGATAG GGACCTTCCA CCACCTCACC TGCAATAGCG CTTTGTGATT GGCTCTCTC 12000
 AACCACCTCG ATAGCCAGAT AAGCATGGTC ACTTCCACCA TCTAGTAAAA TAGCCCCCTG 12060
 TGACACAAAG GAAGCTACCA ATTCTAATCT CTTTGAAATC ATCTTCTCTC ACTTTCACAA 12120
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 TCTGCCGAAA GAAGTTTCAA TGTCCTAAG TAATAAGTGA ATCCAATTGA AAGATTTTAA 12240
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 TATAAAACCA CATGCTAGAA TATAATTAGA AAGTTAGAAA AATAAAGT TTAGCTAAAA 12360
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 TATGCTTCTC GGAAATTATC ATAACAGGAG GATACAGTCA TGGACCAAC ATTGTTTGAA 12480
 TTAGACAAC TCCAGAGGA AGATATCATG GTCACAGGTC TCCCTAAGTA TTGTTCTTTT 12540
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 ATTATTATC AGATAAGATG CCTGCACAAG GGTGGAATAT ACACATAAGC TCCCAAAATA 12780
 AAGACCGTGT AAATATTTT AAGATTGTGT ATAAACTATC CCAACTAAAT AATTGTAGCT 12840
 TTAAGTTGT TAAAAATTA GAGGAATTA AAAAAATTA TTCCCTAGG GAAATGAGCC 12900
 CTACTGCTAA CAAATTTATA ACTCTATATC CTAAGTCAGA ATCTGAAGCT AAGAGTATGA 12960
 TTTGTAACT TACGAATAGA CTGTGAGAT TTAAGGCTCC AAAAATACTA TCTGACTATC 13020
 AATGTGGAAT GCATCTTCCA GTTCATTATA GATATGGGGC TTTTAAAAA AAACAAGCTT 13080
 ATGATGAAAA AAATAAAAAA GTCATCTATT TATTGCTAGA TGAATAAAGG AAGAAGTATG 13140
 TAGAAGATAA GAGACAAAAT TTCCCTAGTC TTCCTAGCTG GAAATGGAT TTAATTTTCAG 13200
 AAGAAG 13206

(2) INFORMATION FOR SEQ ID NO: 34:

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- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13104 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 34:

CCGGATCCAG CGAAAAATAT GCTCTTGGAT GCTGTAAGTG GTCAAAAAGA TGCTAAAAACA	60
GCTGCTAACG ATGCTGTAAC ATTGATCAAA GAAACAATCA AACAAAAATT TGGTGAATAA	120
AAAAATTGTT CAAGGGGGGT GGAAATCAA TCCCCCTTGG AATTATACAA TAGAGACACA	180
AATAATTAGT CTTTCTTATA AAAAGTAGT ATCCTATGAA AGGAGTTAAT ATGGAAGAGC	240
AACAACCTAG TAAAGCAGCC CTGCTGTCTA TCATTCTCTG GTTAGGACAG ATTACAAATA	300
AACAAAAGC CAAAGGTTTT ATCTTCCTTG GTGTAACCAT CGAATTGTGC CTTTACITCC	360
TAGCACTTGC AACCCCTGAA TTGAGCAACC TCATCACTCT TGGTGACAAA CAGGTCGTG	420
ATAAATCCCT CTTTATGCTG ATTCGTGGTG CCTTCCATCT AATCTTTGTA ATCGTTTATG	480
TACTCTTTTA TTCTCAAAT ATCAAAGATG CACATACGAT TGCAAAACGC ATTAACAATG	540
GAATTCAGT TCCACGCACA CTCAAAGACA TGATCAAGG GATTTATGAA AATGGCTTCC	600
CTTACCTCTT GATCAITCCA TCTTATGTTG CCATGACCTT CGCGATTATC TTCCCAAGTA	660
TCGTAACTTT GATGATCGCC TTTACCAACT ACGACTTCCA ACACCTGCCA CCAACAAGT	720
TGTTGGACTG GGTGTTTTG ACCAACTTTA CAAACATTTG GAGCTTGAGT ACCTTCCGTT	780
CTGCCCTTGG TTCTGTCTTT TCTTGGACTA TCATTGGGC TTTGGCAGCT TCTACTTTAC	840
AAATCGTAAT TGGTATCTTC ACAGCTATCA TTGCCAACCA ACCATTATC AAGGAAAAAC	900
GTATCTTTGG TGTATTTTC CTTCTTCCTT GGGCTGTCCC AGCCTTCATC ACTATCTTGA	960
CATTCTCAA CATGTTTAAC GATAGTGTGC GTGCTATCAA CACTCAAGTA TTGCCAATCT	1020
TGGCTAAAT CCTCTCTTC CTGATGGAG CTCCTATTCC TTGGAAGACA GACCAACCT	1080
GGACTAAGAT TGCCTTGATT ATGATGCAAG GTTGGCTCGG ATTCCCATAC ATCTACGTTT	1140
TGACCTTGGG TATCTTGCAA TCTATTCCTA ACGACCTTTA CGAAGACGCT TATATTGAGC	1200
GTGCCAACGC TTGGCAAAA TTCCGCAACA TCACCTTCCC AATGATTTTG GCTGTTGCGG	1260
CACCTACTTT GATTAGCCAA TACACCTTCA ACTTTAACAA CTTCTCTATC ATGTACCTCT	1320
TCAATGTGG AGGACCTGGT AGTGTGCGAG GTGGAGCTGG TTCAACCGAT ATCTTGATCT	1380
CATGGATCTA CGGTTTGACA ACAGGTACAT CTCCTCAATA CTCATGGCG CGAGCTGTTA	1440
CCTTGATPAT CTCATCAAT GTCACTCAA TCTCTATGAT CGCATTCAG AAACACACG	1500

CATTTGATAT	GGAGGACGTC	TAAGATGAAT	AACCTCAATTA	AACCTCAAACG	TAGACTGACT	1560
CAAGGCCTTA	CTTACCTTTA	CCTGATGGT	CTATCAATTG	TAAATTATCTA	TCCACTGTGTG	1620
ATTACCATTA	TGTCAGCCTT	TAAAGCAGGT	AACGTCCTAG	CGTTTAAACT	AGATACTAAT	1680
ATCGACCTCA	ATTTTGATAA	CTTTAAAGGC	CTCTTCACTG	AAACCTTGTA	CGGTACTTGG	1740
TACCTCAACA	CTTTGATTAAT	CGCCTTAAT	ACCATGGCTG	TTCAAACAAG	TATCATCGTA	1800
CTTGCTGGTT	ATGCTTACAG	COGTTACAAC	TTCTTGGCTC	GTAAACAAG	TTTGGTCTTC	1860
TTCTTGATCA	TCCAAATGGT	GCCAACTATG	CGCGTTTGA	CAGCCTTCTT	CGTTATGGCG	1920
CTTATGTTGA	ACGCCCTTAA	CCACAACCTG	TTCTCATCTT	TCCTCTACGT	TGGTGGTGGT	1980
ATCCGCAATG	ATGCTTGGCT	CATGAAAGGC	TACTTCGATA	CAGTGCCAAT	GTCTTTAGAC	2040
GAATCTGCAA	AACTAGACGG	TGCAGGACAC	TTCCGCCGCT	TCTGGCAAAAT	TGTTCTACCA	2100
CTTGTTGGCG	CAATGTTTGC	CGTACAAGCT	CTCTGGGCCCT	TCAATGGGACC	TTTCGGGGAC	2160
TACATCCTCT	CTAGTTTCTT	GCTTCGTGAG	AAAGAATACT	TFACTGTPTGC	CGTAGGTCTC	2220
CAAACTCTCG	TTAACAATGC	GAJAAACTTG	AAGATTGCCT	ACTTCTCAGC	AGGTGCTATC	2280
CTCATCGCCC	TTCCAATCTG	TATTTCTCTT	TTCTTCTTAC	AAAAGAACTT	TGTTTCAGGA	2340
CTTACAAGTG	GTGGCGACAA	GGGATTAATTT	ATCCCGGCCA	CCCTTTTCCA	TTTATATCTC	2400
TTCGAAAAATC	TCTTCAAAAC	ACGTACAGCTT	TATCTCCAAC	CTCAAAGTTG	TGCTTTGAGC	2460
AACCTGTGCG	TAGTTTGAC	TTTGATTCTT	ATTGATTATT	AGCAANTGTC	ACTGTAAATA	2520
ATATCCTTGT	AGCAAGCAAT	TTTTCTCCTA	GACTTGAAAT	AAAGCGCATT	TCTCTATATA	2580
ATAATACTCA	TATAGAAAC	ACCTTTTAGA	AAGATACCTA	TGCTTCCATA	TCCATTTTCC	2640
TATTTTTCAA	GTATTTGGGG	GGTTCGTAG	CCCTGTGCA	AACGTTTCA	GCTCAACTGG	2700
TTTCAACTTC	TCTTTACCAG	TATCTTCCTT	ATCAGCTTGT	CTATGGTACC	CATTGCTATC	2760
CAAAACAGCT	CCCAGGAGAC	CTATCCGCTA	GAAACTTTTA	TCGATATGT	CTATGAACCT	2820
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ACTTATACTG	GAACAGCTAG	TCAAGCCCTT	TCTGTGTGTA	TTGGTCCAAG	TCAAAATCAAG	2940
GAATTTACCTA	AGGACTTGCA	ACTGCAATTC	GATACAAATG	AGCTAGTCAAT	CAGCAAGGAA	3000
AGCAAGGAAC	TGACCCGCAT	CTCTTACCGA	GCCATTACGA	CTGAGAGTTT	CAAAAGCAAA	3060
GACAGCTTGA	CCCAAGCAAT	TTCTAAAGAC	TGGTACCAAC	AAATTCGTGT	CTATATCAGC	3120
CTCTTCCTAG	TTCTCGGTGC	GAGCTTCCTC	TTTGGTTTGA	ATTTCTTTAT	CGTCTCTCTT	3180
GGAGCTAGCT	TTCTCCTTTA	TATCACCAA	AGATCACGCC	TCTTTTCTATT	TAAATACCTTT	3240

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AAAGAGTGCT ACCATTPTAT CTTGAACTGT TTAGGATTCG CGACTCTGAT TACACTTATF	3300
TTGGGATAT TTGGCCAJAA TATGACAACC CTGATTACTG TACAAAATAT TCTTTTGTT	3360
CIGTATCTGG TCACTATCTT TTATAAACA CATTTCCGTG ATCCAAATTA CCATAAATAG	3420
GAGATTTTFA TGCCCGTTAC GATTAAAGAC GTGGCCAAGG CTGCTGGTGT TTGCGCTTCA	3480
ACCGTAACCC GTGTTATTCA AATAAATCA ACCATTAGCG ACGAAACAAA AAAACGTGTT	3540
CGCAAGCTA TGAAGGAAC CAACTACCAC CCAAACCTCA ACGCTGTGAG CTTGGTAAAG	3600
AGCTATACTC AGGTATATGG ATTAGTTCCT CCTGATGACT CAGACGCTT CTACCAGAAT	3660
CCTTTCTTC CATCGGTCT ACGTGGCATC TCTCAAGTCG CATCTGAAA CCAATATGCC	3720
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TACGGCAAGC GTGTAGATGG GCTAATTTTT CTCTATGCC AAGAAGAAGA CCTCTGTGA	3840
AAACTGTGCG CAGAAGAACA GTTCCCTTC CTATCTTAG GTAAATCTCT ATCTCCTTC	3900
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GACCGTTTAA CAGGCTATGA ACAGGCGCTT AAACATTA CACTTACCAC TGACAACAAT	4080
CGCATCTACT TTGCGACGA GTTCTGGAA GAAAGGGCT ATAAATTAG CAAGGATTA	4140
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AATCCCAAGC TCAACTTGGC AGCCTATGTC GATATCAATA GTTTAGAGCT TGGTGTGTT	4320
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ACTACCGACA TTCTTACCAG TTCTCTTACG AATAGTCAGG CTGACGATAT CGGTCCACCC	5160
ACTGGAGATA TTGTTCGAA GAGCAAAACC AATCCCAAA CCATACAA CACCCCCAAA	5220
AAGGGAATPG AATAATGGAT CCTCTGTCAA GGTTGCCAA GGGACAACT GGATAAAGAA	5280
GGAACCTATA GATACCGTGA TAAAGGTAAA GACGGTGAAC TTATGGCCAA TCATGATACCA	5340
AGCTAAGACC ATCAAAGGGA AGTTAATGGC GTAGAAGCTT AGCGAAATCG GAATATGAAA	5400
ACCAAAACAG TGATTACTCA AGGCAGAGAT AATCTGTGCC AGACCTGTGT CACCACCTCGA	5460
ATACACATGC CCTGGTTGGA AAAAGAATTT AACTGCTACT GCTGATAAAA AACCATGAC	5520
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TTGTTTCACT TTCTTCTACT TGTAAGCTGA GTTCTCTTAG TTGTTTGAGA GCGACTGTTG	5700
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CAGTAAGGAA GGAGCTTTCC AAGTGGACCT GAGTAAATTC AGCGTGGCGG TCTCCACGCA	6720
AGTCTCTGTC ACGGAACAT TTAAAGATTT GGTAGTAAC GTCAAAACCA GCATTCATCA	6780

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TAGGCACAAT AAGAGCTGTC ACGTTTAACT CAACCGCACC AGTTGGCAAC TTATCATTGG	7140
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TCCTTTCAAG GTTATTTCCT GTCCGATGCG TTCTCAAGA ACACGACCAG CATACATACT	7380
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CACTCCATACA	AACATGCCCA	AGAACCCCTC	AAGACAATAG	ACATCAAAAA	TAACAATCTA	9360
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GATTAACAAC	GCTTAGGTCC	ATCCCAATCA	GTAGAAATAC	GCTGACTAAT	AAAGCTATGA	9540
CCACTACATA	ATAAATCACT	TTATACCTGT	TCATCACTCG	TCTCCTCCCA	AACGAAATAC	9600
CGAATTCGACT	GTTCCTGTGA	AAATTGAGA	TATTTTCAGG	GCAATGATAA	TGGATGGGGT	9660
GTACTCATCC	CGTTCTAGTA	GGCTAATGGT	CTGCTCGGAA	ACCCCTGCCA	GTTTGGCTAG	9720
GTCGGTTTGA	TTGAGACCAT	CGCGAGCTCG	AAGCTCTTTT	AGACGATTTT	TTAGTTGCAT	9780
GTTACACACC	TACTCTCGGT	CAAAATCAAC	GXTTTGGATA	TCCTCAATAC	GTTCGAACCT	9840
GAATTTTCTC	TTTCCCGTAT	TATCTACAGG	TGCTAGCTTT	ACCCATTCTT	CATCAACATC	9900
CACAACTCC	CAGTTATCTG	GCACCAATATA	CACCTCCGTT	ATAATTGGTT	CGTTTCCAAT	9960
CATTCTCTGT	AATAATCTCG	ACATTTCTGC	GTTTCTCTTC	TCTTTTGGCT	CAAGTCTTTT	10020
GATTTTATTC	TCTAGTTTCT	TGATTTTTTT	AGAAATATTA	GAATAAAGA	AAATCATAAA	10080
TAGTATAAAT	CCTAGTACCC	ACATTATAAC	TCCTTTCTGC	TTCTATTTTC	TTAACTTGAA	10140
TTCAITGTAA	CATATCTTTT	TCTTTTTGAC	AAGTATAGTT	GTCAAAAAAA	TTATGATTTT	10200
TGTCAATTTG	CAAAAGAAAA	AGGTCAGGAG	TAGGTTCTCT	ACCACCTTAT	CTATCATTAA	10260
TACTCTTCTA	AAATCTCTTC	AAACCACGTC	AGCTTCACCT	TGCCGTAGGT	ATGGTTACTG	10320

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ACTTCGTCAG TTTTCATCTAC AACCTCAAAA CCATGTTTGG AGCTGACTTC GTCACTTCTA	10380
TCACAAACCT CAATAACATG TTTTGAGCTG ACTTCGTCAG TTCTATCCAC AACCTCAAAA	10440
CCATGTTTGG AGCTGACTTC GTCACTTCTA TCACAAACCT CAAAACAGTG TTTTGAGCAA	10500
CCTGCGGCTA GCTTCTAGT TTGCTCTTTG ATTTTATATG AGTATAAAAT CCTAGTTTTT	10560
CAAGAATTTT TGAGAAGTTT TGGCTGATTG TCTCAAGTGA CACTTGCATC TCTTCTCGGG	10620
TTTGTTTGTG CTNGACCGTC ACTTGTCCGC TTTTGACTTC GCTCTCTCCT AGGGTGATGA	10680
GGGTCTTAGC CGCAAAGACA TCGGCTGACT TGAAGTGGC TTTTAGTTTA CGGTGAGGT	10740
AATCAGCGTC TGCTTTGAAA CCTTGTGGGC GAAGAGCTTG TACCAATTCC AAGGCTTTGA	10800
TATTTGCCCC TTGCCCCAAG ACTGCGATAT AGACATCTAG GCGGTTTTCG ATAGGAGGG	10860
TCACACCTTG CTTTTCAGG ATGAGAAGCA GGGGCTCTAC ACCAAGTCCA AAACCAAAATC	10920
CAGCAGTTTC AGGGCTTCCA AAGTAAGCAA CCAAAACATC GTAGCGACCA CCGCGACAGA	10980
CGGTCAAGTC ATTGCCCTCA ATCTCTGTGA TAACTCGAA AATGGTGTGG TTGTATAGT	11040
CCAGACCACG CACCATATTG GTATCGATGA TGTAACTTAC TCCAAGATT TCCAACATCT	11100
GACGCACAGC ATCAAAATGA GCTTGGCTTT CTTTCATCAAG AAAATCCAAG ATAGACGGCG	11160
CATTCCTTAC TGCCACCTTG TCTTCTTTTT CTTTAGAGTC CAAGACACGA AGAGGATTTT	11220
CCTCCAGCGC ACGTTTGCTA TCTTTAGACA AGGTCTCCTT GAGCGGTGTC AAATAGTCAA	11280
TCAAGGCTTG GCGTAGGCTT GCACGGCTCT CAGGATTTCC AAGAGTTTGG AGGTGCAATT	11340
TGACACCTTG AATAACGATT TCCTTCAAAA AATGGGCTGC CATAGCGATT GTTTCCACAT	11400
CGGTAGCTGG ATTGCTAGAG CCAAAACACT CAACACCAAT CTGGTGGAA TGGGCGCAAGC	11460
GGCCTGCTTG TGGACGCTCA TAAACGAAACA TAGGTCCCAT GTAGTAGAAC TTGCTTGGCT	11520
TTTGCACTTC TGGGGCGAAA AGTTTATTTT CCACATAGGA ACGGACAACG GGTGCAGTTC	11580
CTTCTGGAGC GAGGGTAATA TGACGGTCAC CCTTGTCATA AAAATCGTAC ATTTCTCTGG	11640
TTACGATATC GGTGTATCT CCGACAGAGC GACTGATAAC CTCGTAAATG TCAAAAAATAG	11700
GCCTGCGCAC TTTGCAATAG TTGTAGCGTT TGAATACTC ACGGGCAAG CCCTCAACGT	11760
ACTGCCACTT AGCAGACTCA GCAGGTAAAA TATCCTGCGT TCCCTTTGGT TTTTGTAAAT	11820
TCATAGGGAA TCTCTTTTAA ACTTAATAGT CTTATTTTAC CATAAATAGA GGGATTAAAA	11880
AGTTAAGAAA AAAATTAGGA TTTAGATATC ATTTTGTAGA TTAAGAAATTG TCAAAAAAAT	11940
AGCTAGCAAG GAAAGACCAA CAAATAGCAT CCAAGTCAAC TGTATATTC ATACGGCTAC	12000
TAGTGAAAAA CAGCTGTTC CCACAGGTAT GGATAAGGTA AACAAATAGC CTAAAAAATT	12060
ACTAGTAAGA GCTAGAACCT CTGGAGCTAG ATTTTTCATG AGCATGSCAC TAATCTTTGG	12120

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TTGAACTTTA CCAGACACAT ACAGAGTAAA GAAGAGAAAT AGCAAAACCA GCACGACTTG 12180
 ATTGAATAAA TTAGCCAAAC CACTAGACTT AAGTCCTACG GTCTCCACA TCATCAATCT 12240
 AGGCAAGGAC TGCTTCCCAA AATATCAATT GCCCGTAAGG CTACTGATGA TGACTGATAC 12300
 TAAACACAGC AATTGATTGA TAAATAGTGC CTCTGTATAA GAAAAATTCA AGAGAGAATG 12360
 GCTCAAAAAG AAGATATTAT AAATCCACC CAAAGCGCCA CCCAAGGAAT TAATAAGCAA 12420
 GACAGCAAAAG AGCATAAAAC CAAAGTTTTT CTGTCCACTT TTAAAGAAAA CGAGACGTAA 12480
 ATTTTCGTAA ATTTGTTAGGA ACTGGTCTTT GATAGAAAAG TTTCTATTTT TTAAGTTTTC 12540
 ACCATCAGCA GATGACATTG ACAGGCTCAA TTTGCTTTTT CCTAAAAGA GGATAGTGGC 12600
 TGATACTAGG AAAAAGCAGG CATTGATTCG CGCAACGAGA GAAAAATTGT TGACCGATAG 12660
 AGCTAAGAGC CAGACTCCGA AAGCTTGACC ACCAATAGCT GAAATATAGG TGATGAACTG 12720
 TGAJJAAAGAA TAAGCTTCCA TCAGATCATC TTCAGTACT TTTTCTTAA TAAGAGGCAT 12780
 ACGCAGGCCA CTGCAAAAT CACTGATGAT ATCACTAATG ACATTGATCA AACACAGGCT 12840
 AGAAAAAGCA AAGAGACTAG CTTGCTGAAC AACTAGGCGT GCTAGAAAAA ATAGAACCCG 12900
 CTGAAACAAA CGCCTATAGA CCATCCATTT GACCTTGTCC CTGCTGTAAT CTGCCCGAAT 12960
 CCCTGCAAAA ACTGTAAAGA GGGTCGGAAG AATCATGACA ATATTGCCA TAGCAACAGC 13020
 AAAAGATGCT TGTGACAAGG TCGATGCATA GACGATAAAG ACCAGGTTGA AATCGAAAC 13080
 ACCAAAAGCA TTGAAGAAGC GTGG 13104

(2) INFORMATION FOR SEQ ID NO: 35:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19250 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 35:

CCGGGCAAAAT AGTTTTGAAC TTTTCATCAT TTTCTCCTTT AAAACTTTCT CTCCTATTATA 60
 GACTCTTTTC AGAAAGTTGT CAACAGAATT TTCAGAAATT TTGAJJATTA TTTTTCAAAC 120
 AACATCTTTC CAAAAATAT GAATATCOTA AGCGCGTCAT AACAGGTAT CTATCAATCA 180
 TGGAGCTTCT CCTGTATACT ATTAGTAAAG TAAATATTGG AGGATATTTT AATGCCACAA 240
 CCTATTGTTT CTGTAGAGAT TCCACAATCT CGTCTGTTTT ATTCTAAAAA GAGAAATGAT 300
 ATTTCTCTTA AATTCGTAT TGGCAAGCTT GAAGTAAGTT TTTTCAATC TCTCAATCTC 360

GAAATGATAG AACAGCTTTT GGATAAGGTG TTGCTCTATG ACAAATTCATC TATCTAGCCY	420
AGGGCAGGTC TATCTCGTGT GTGGGAJAAC TGATATGAGA CAAGGAATCG ATTCACTGGC	480
TTATCTCGTT AAAACCCACT TTGAATTGGA TCCPTTCTCC GGTCAAATCT TTCTCTTTTG	540
TGCTGGACGT AAAGACCGCT TTAAGTCTCT TTAAGTGGAT GGTCAAGGAT TTTGGCTACT	600
ATATAAAGCG TTTGGAACG CGAGACTGAC TTGGCCCAAT ACAGAAAAGG ATGTCAAAGC	660
TCTCGCACTT GAACAAGTAG ATTGGCTGAT GAAAGGCTTT TCTATCACTC CAAAAATATA	720
GTAGATTGAA ACTAGAATAG TACACCTCTG CTTCTAAAAA ATTCTTAGAA ATCGATTTTA	780
CTGTCTCGAT CGATTTGTCC TGTATTATT TCAATTTACT ATAAATCCAT CAGAAATCG	840
TGATTTCTAT TGAATGAGG ACTTTCTTTT TATACTCATC TGCTTTCAAA AAGCACTCTA	900
GTCCATCTCC GATTAACGAT GGACTTTATC ACCTCCTCTC CCAATCTCTG TATAACATCT	960
TGAAGTTGAT TCATGACATC TTCCAAAGTT CGAAAGGCTT TATTTCTAAA TCCACGTTTA	1020
CGAATCTCTT TCCACACTTG TTCAATGGGG TTCACTCTCG GTGTGTATGG AGGAATAAAT	1080
GCAAAAGCCA TATTAGTCGG AATCTTTAAG GTACTTGATT TATGCCATAT AGCAATGTCC	1140
ATAACGAGTA AAGATAATC ATCTGGATAA GCTTGTGAAA GCTCCTATTC CTAAAGCCCC	1200
TTTATAACCT CTTGGGAGAG AGACTATTGA CTCAGCCCTT ACTTCATGG GATGAAACCT	1260
CCTATCGGGT TCTAGAGAGT GATAGCCATC TGACCTACTA TTGGACTTTT TTGTGAGGTA	1320
AAGCAGAGAA ACAAGGGATT ACGCTTTACC ACCATGATCA GTGTGGAAT GGTTCAGTAG	1380
TACAAGAAAT CCTAGGAGAT TATTTCTGGCT ATGTTCATTC TGATATGTTG CGGCAGTAAC	1440
TTAGSACTTT AGTCCTCTAG TTCTGCTCTAT GCGATAGCAG TCCAAGGTTT AGGAGTAAGG	1500
CGAGCTAAG CTTGGTAAAC TGCGAACAGC TAGAAGCTTA TCGTCAACTG GAAGAAGCTG	1560
CACCTGTTGG ATGTTGGGGC CATGTGAGAA GGAAGTTTTT TGAAGTGCCC CCCAAGCAAG	1620
CAGATAAATC ATCCTTAGGA GCTAAAGGTT TAGCCTATTG TGATCAGTTA TTTTCCTTGG	1680
AAAGAGACTG GGAGGCTTTG CCAGCTGATG AACGGCTACA GAAACGTCAA GAACATCTCC	1740
AACCCCTACT GGAAGACTTC TTTGCTTGGT GCCCTCGTCA GTCAGTTTTA TCGGTTCAAA	1800
AACTAGGAAG GGCATTTGAA TACAGCCTCA AGTATGAAGA AACCTTTAAG ACCATTTTAA	1860
AAGACGGACA CTCGTCTCTT TCCAATAATC TAGCTGAACG CGCCATTAAA TCAATPGGTTA	1920
TGGAGCGGAG TAAAAGAGTC CAGTGGACTC TTTTAGCCTA AGCTCAGTTT AAAAAAAGA	1980
GGGTGGTTAT TTTTAAAAAA GCGAGGGTGG TTATTTCTCT AAAGTTTTGA AGGAGCTAAA	2040
GCAAGAGCTA TTATTATGAG TTTGTTGGAA ACAGCTAAAC GTCATCAATT ATAGTGGGTT	2100
GAATCTATAA CAGTACGCAT CGACTGCTAA AATATTTCTA TAAATCAATT TTCTTTCTCT	2160

AATCGATTG	TTCATATCTT	ATTACAATCC	ATTATAATA	GCGAGAAATA	TCTATCCTAT	2220
CTTCTAGAA	GTCTTCCAAA	CGAGGAAACT	CTCCTAAACA	AAGAGGTTTT	AGAGGCCAT	2280
TTACCGTGA	CTAAAGTTGT	ACAAGAAAAG	TGCAATATAG	AAATCTCCAG	ATTAGGAAC	2340
ATATATGAGT	TCTCTAGTCT	GGAGATTTT	CANTAGACTT	CGTTATGGG	CGGTTACTTT	2400
CGAAACTTG	AAAACCTCAA	AAAACGGATT	TTTATCGCTC	TGAACATCAA	AAAAGAAAG	2460
ACGAAATTG	TCCTTTCTCA	AGCTTAGCTT	TTCTTCAACC	CACFACAGTT	GACAAAGAGC	2520
CCTTTATCT	ATCAACATG	AAGCGCAAAA	ACAAGCCAAA	AATCCGATAG	AATGGCTATC	2580
CCTCGACTAT	CAAGTAAGAC	ATTTCATCA	AATAGTTCA	ATTTTACTCT	TGTTCTACTA	2640
AGAATTAATC	ATCTCGTTTT	GATTTATTAA	AAATATACAA	TTGAGCTTTT	CCTCCAAACT	2700
ATTTTATCCA	CTATCCCTGT	ATAGCTCTGT	ATTATCTTAA	CAACTTTAGT	AGAGACATTT	2760
TCCTCAACAT	AAATCCGAAC	CGGTAATCCA	AAATCTCTAT	CTGTGCGCAA	GCTAACAGCA	2820
GTTTCAACTG	CTTGAAGAAG	AGAATTTTCA	TCAATGCCTG	CCAAATAAAT	TCCTGCCTTA	2880
TCTAAGGACT	CAGGAGCTTC	TGTACTTGTA	CGAATACATA	CAGCGGAAAT	AGGATAACCT	2940
TGACTAGTAA	AGAAACTACT	TTCTTCCGGT	AAAGTTCCGG	AATCAGATAC	TACAACAAAT	3000
GCATTCATCT	GTAACAATTT	ATAGTCATGG	AATCCTAGTG	GCTCATGCTG	AATCACACGT	3060
TTATCTAGTT	TAAAACCGCT	CTCTTGTAGC	CTTTTCTTTG	ATCTAGGATG	GCAAGAAATAT	3120
AAGATTGGCA	TATTATACTT	TTGAGCTAAT	TGATTAATTG	CTGTAAAGAG	AGAAATAAAA	3180
TTTTTATCTG	TATCAATATT	TTCTCTACGG	TGAGCTGAAA	GTAAGATATA	ACCTCCTTTT	3240
TTCAATCCCA	AACGTTCAATG	GATATCTGAA	GACTCAATAG	CAGATAAATT	TTTATGTAAC	3300
ACTTCTGCCA	TAGGAGAACC	AGTTACATAT	GTGCGCTCTT	TAGGTAAACC	ACACTCATGT	3360
AAATACTTTAC	GTGCATGTTT	AGAGTATGCT	AAGTTAAACT	CTGAATAAAC	ATCAACAAATC	3420
CGACGATTAG	TCTCTTCCGG	TAGGCACTCA	TCTTTACAGC	GATTGCCAGC	CTCCATATGA	3480
AAATATGAAA	TATGTAAACG	CTTGCGCAGCA	ATAGCTGATA	AACAGAAATT	TGTATCCCTT	3540
AAATCAATA	AAGCATCTGG	TTTAATTGTA	TTTATCAATT	TGTATGAAGT	ATTAATAATA	3600
TTCCCTACAG	TAGCACCRAAG	ATCATCTCCA	ACAGCATCCA	TGTATACGTC	CGGAGTGCTT	3660
AACCTTAAT	TATCAAGAA	AATACCAATT	AAATGTAAAT	CATAGTTTGT	TCCAGTATGT	3720
GCCAAATAA	CATCAAAATA	CTTTCGACAT	TTAGTGATAA	CACACTTTAG	ACGTATAATC	3780
TCGTGACGTG	TTCCCACAAT	AATCAATAAC	TTAAGTTTGC	CATTATCTTT	AAAGTGAATA	3840
TCACATAAAT	CTGTCTTAAT	TTTCATTAT	TTCTCCACTT	GTCAAAAAA	AGTATCTGGA	3900

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TGCTAGGAT	CAAAAGACTC	ATTAGCCCAAC	ATGACAGTAA	TTAGATTTC	TGTAFCAGAA	3960
AGATTAAATA	TATTATGTGC	ATAGCCCGGT	ATCATATGTA	TGCTTCAAT	CTTATCGCCC	4020
GACACTTCAA	AGTTCAGAA	AGGATACCTCT	TGACCGTTT	CATCCAGCCC	TATCCPACGC	4080
TCTTGTAATTA	AAGCAGGAC	AGAAACAACC	ATGAAAAATT	CCCACTTAGA	ATGATGCCAA	4140
TGTTGCCCTT	TGGTAATGCC	AGGTTTAGAA	ATATTAACAG	AAAAATTGACC	CGTATTTTCT	4200
GTTTTAAATA	ATTCCGTAAA	ACTACCTCGT	TCACTATAT	TCAATTTTAC	AGGAAACTTA	4260
AACCTTATCTA	CTGGTAAATA	AGATAGGTAG	GTAGAATACA	ATTCTTTTTT	AAACGATCCC	4320
TGAGGAATTT	CAGGCATAAC	TAAACTATCA	GGCTGTTTTT	TAAATGTTTC	TANTAGAGAG	4380
ACAATCTCTC	CTAAGTTTGC	ACGATGAGTC	GTTGGTACGT	AGCGATAGTT	TCCTGATGGG	4440
CTAGGTAAAG	TTTGTAATCC	ATCTAGATTA	CAACGATGAG	GATTTCTTTC	CAATGCAGTT	4500
AGACACTCTT	GTATCAAAAT	ATCAATATAC	AGCAACTCCA	ATTCTACACT	TGGATCATTT	4560
ACTTGAATAG	GTAAATCGTG	AGCTAGATTA	TAAACAGAA	TTGCTACAGC	AGAAATGTAG	4620
TTAGGACGGC	ACCACTTCCC	ATAAAGATTG	GGGAAACGGT	AAACTAAGAC	AGGTGCTCCC	4680
GTTTCTTTTC	CATATTCAAA	GAAGAGTTCT	TCCCCTGCTA	GCTTAGATTG	TCCATATATA	4740
GAGTTTGAAA	ATCGGCCCTC	TAAACTAGCT	TGACTAGAAC	TTGAGAGTAG	AACAGGACAA	4800
GTGTTTTCAT	ACTTTTCTAA	AATCTCCAAT	AATCTACTTG	AAAAACGTA	ATTTCCCTCC	4860
ATGAATTCAT	CAGGATCTGT	TGGACGATTG	ACACCAGTCA	AATGGAATAC	GAATCGGCC	4920
TTCTTACAAT	ATTCACTTAA	TAAATTCOGA	TCTGTATCAC	GATCATACTG	AAAAATCTCT	4980
CCAACTCTTA	AATTAGGACG	AGTCTATCT	CGTCCATCTT	TCAAAGCTTC	CAGAATACAG	5040
ATAGAATTTT	TTCTTACAAA	TCCTTTGCGT	CCTGTGATTA	AAATATTTTT	AATCATGGCC	5100
CCTCCTTATT	TTATATGCTG	TTTTAATAGT	TAACTCTCTC	GACAATACAT	GATACATTAT	5160
ATATCCTTGA	TAAATTTAAT	GTATCTTAAA	AGATTTTACA	TCTCTTCGTC	TGCTACCATA	5220
TCACGAATTG	CTGTCTGTAT	TTCACTTAAT	TCTAGCAACT	TTCTTTTAAC	TTGCTCTACA	5280
TCATCAAAAT	CGGTATTATT	ACTATTGAAT	TCTGTCAACA	AATTTCTATT	CGTACTACCA	5340
TCTTTGAAAT	ACTTATCATTA	GTAAAGATTA	CGATTATCAC	TAGGAACCTCT	ATAAAAATCA	5400
CCCAAAATCAA	TTGCATTTCG	GCACTCTTCG	TTAGTTAATA	GTGTTTCATA	CCTTTTTCCT	5460
CGTGCTTCAA	TACCTATAAT	CTAATATATCT	TGTTCTGAGG	CAAAAATTC	TGATACAGCC	5520
TTAGCCAACA	CTTCAATCGT	ACATGCTGGT	GCCTTCTGAA	CTAGTATATC	TCCAGATTTC	5580
CCTTCTTCAA	ATGCAAAATA	AACCAAGTCT	ACTGCTTCTT	CCAATGTGAT	CACAAAACGT	5640
GTCTGCTAG	GTTCAGTAAT	TGTAAGAGCA	TTTCTTGTCT	TAATTTGTCTC	AATCCAAAGA	5700

GGAAACGACAG ATCCACGGCT ACACAGAAACA TTCCCATFAGC GAGTCACACA TATCTTTGTA	5760
TGCTCAGGAT TTACCGTCTT GGACTTAGCA ACAGCAATCT TTTCCATCAT AGCCTTGGAT	5820
GTTCACATAG CATTGACAGG ATAAAGCCGCC TTATCTGTAG AAAGACAGAT AACTTGCTTT	5880
ACACAGAGCTT CGATAGCCGC AGTGAGGACA TTCTCCGCTC CCAAAATGTT AGTTTTTACC	5940
GCTTCTACAG GGAATAATTC ACAAGAAGGT ACTTGTTTAA GAGCAGCAGC GTGAAAAACA	6000
TAAATCCACAC CATGCATAGC ATTTTTTACC GAAGCTAAGT CACGCACATC TCCAAGGTAA	6060
AAACGGATTT TCCAGCCAC TTCTGTACTT TTTACCTGAA ACTCATGAGC CATATCATCT	6120
TGTTTCTTTT CATCTCGCGA AAATATACGA ATCTCTGAGA CATCTGTTTC TAAAAAAGC	6180
TTGAGAACCG CATTCCTAAA TGAACCTGTC CCTCTGTAA TTAGGAGAGT TTTTCTGTGA	6240
AATTGTGACA TATATTACAC TTCTCCTTCT AGTATCTCTG CAATTTTCTT ACAAGCCGTT	6300
CCATCTCCAT ATGGATTTGA AGCTTGACTC ATTGCTTGAT AAACCTGAATC ATTTTCTAAT	6360
AATCTCTTAA AATGCCATATA AATATTATTT TCATCAGCAC CTACAAGTTP CAAAGTCCCT	6420
GCTTCAATTC CCTCTGGAGC TTCAGTTGTA TCTCTCATAA CCAAAACAGG TTTTCTTAAA	6480
CTTGAGAGCT CTCTCTGAAT ACCACCACTA TCTGTAAAA TAAATAAAT TCTTGATAAA	6540
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AGTTCTTCTT CAGCAATTTG GCGAACACGA GGATTCATAT GGATAGGATA AATAGCCCTTG	6660
ACATCTGAAT ATTCTTCAAT AATCCTTCTA ATTGCTTAA ACATATGCTC CATCGGTTCA	6720
CCAAGATTTT CACGACGATG AGCTGTAATT AGAATAAAC TGCTTTCTCC TATCCATCTC	6780
AATCTCAGAT GCGTATAGTC CTCTTGAATT GTAGTTTGTA AAGCATCAAT CGCCGTATTA	6840
CCTGTACAAA ATATGCTCTC TGGAGTTTTT CCTTCTCTTA AAAGATTATC TTTTGAAAGT	6900
TGTGTTGGTG TAAATGATA CTGAGCCAAA ACCCCAACTG CTTGACGATT AAATCTCTCA	6960
GGATATGGTG AATAGATATC GTAAGTGGC AAACCAGCTT CAACATGACC AATTGGAAATC	7020
TGTAAATAAA AGGCCCGCAG TGAACTAGCG AAGGTCTGAC TTGTATCCCC ATGAACATAAC	7080
ACCAANTCAG GTTTTCTGTA CTCTAAAAATA GCCTTCATTC CTTCCRAAAT GCCAATGGTC	7140
ACATCAATAA AAGTTTGTCT ATCTTTTCATA ATAGACAAAT CAAAAACGGG AATAATCCCA	7200
AATGTGTCCA AGACCTGATC CAACATTTGA CGGTGTGGC CGGTAAACGA AACTAATGTT	7260
TCAATATCTT TACGTGTTCT TAACTCTTTG ACCAAAGGAC ACATCTTGAT GGTCTCTGGA	7320
CGAGTTCCAA ATACTACAAC TACTTTTTTC ATATATTTAC TTAATCTTAA CAAATAATGA	7380
ACGGTCTCTA AATAAATTA GATAACGGCT AATCCATAAC ACCACCTCAG ACATACTTGA	7440

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ACAAATAGCT AATGTTACTA AACTAAAATT ATCAGACAAG ATAAATATTC CTAATCCCAA	7500	
AGTTTGGACA ATCGAAGCTA ATATAGTTGT CATTTAGTGT TCTTTCACCT TATCAATAGC	7560	
TCCTAAGACA GGCCATCCGT AATTCATAGA ATAAAAACTA GCAACAAAAG CGGGTAATTA	7620	
GTACTTAAGA AAMTCTGCTG AAACGGTATA TTTTTCACCA CCAATTATAG AAAGAATTGG	7680	
ATTTGAAAAG AATAAAAATA TCAAACTCC AAAGATAATA GGAATAACA TAATCCGATT	7740	
AATACTCTTA ACOGATTGTA TATCTTTAGT ACGTATCATA TCGGGATATA AACTATTCTGC	7800	
TATAGGATTA TACAATGATT TTGCTGCTGA AAGCAGTTGC ATTGCTATCC CCCAAAGGC	7860	
TATCTCTTGA CTTTGTAAAT AAAAACCCGA AATGACTGTC GTAAAGACGC CAAAAATAGT	7920	
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CAGATAAGAA AATGATAATT TAATCCATA ATAATGAAGG AATCTATAAG AAACACTGTC	8040	
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TACTACAATA AATGTCAMAA TTGTAATGAT AGTTTTAGAA ATAATATAAG GAATTGCAAC	8160	
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AGCTAACAAA TAAAAAATCT AAAAAAGAA ATTTCTCTCT ATTATTGGGA TTTCACACAT	8280	
CAATATGGTG TAAATTAGAA TCGAAATGAT AGATAAAAA ATTTTTTCAA CTAGAGTATC	8340	
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AATTCATAC ACTTTCACGA ACTAGTCTTT CCAAAAAAAG ATCTAAATAG TCCAAACTAC	8640	
TTCTCGCTTT CAACACCAAT TCTGAAGGTA TTGTTATCGG TTTTAGATGA AAAGTTTCAA	8700	
GTTCCTTTAC AATACTATTA ACACCTGAAT CAATTAAGA TTCACAACGT TGTAACCTCTC	8760	
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TATTAAGACA TGTTCGCAT ACCTCCACAT GTAAATTACA AGTTAAACC ACATCTACCA	8880	
TTTTCAACAA TGATGTCATT TCTGCAAGG AATGACTACT GAATTGAAA CAATCCTCAG	8940	
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AAGTTACTAC AACATAATAG TTAGGATTGT TTTCTAGAAA AAGACTAATT GATTCCGCAA	9060	
ATTTTCTAAG AGCTTTTTTG GAATGATTAT AGTGAACAAG AATATCTCTC TTATCTTTAG	9120	
CTTCTCTTTT CAATGACAC AGCTGCTCTG TTTTCTCTTC TCTTAATTTA CTTGAAATAA	9180	
TTAAATCAAA GGTTCATGTC ACTGGAGCCG AAGGCGACAA ATGCTTCAAA GAATCAAAATG	9240	

ATCTCGATC	ACGAACTGTA	ATAAATTGAG	CATGATTAAT	AATCTCTTT	ATACCATAAT	9300
TCATCAAGA	ATCGTTATTA	GGCCCTGCAC	CAATACCTAA	TACTCCTATA	GGCTTTTTAA	9360
AATATGAAGC	CCAAATTCCC	AAAGGTAAAA	ATCGTTTAAA	TGGATTAAA	TTATCAGAA	9420
AACGTGCATT	ATGCCCTTCC	CCAAAATATC	CTCCCGGGAT	ATACAAAATA	GCATCTGCTT	9480
GT'TTTTGTAGT	AAAAC'TTGT	TTT'TGGCGAT	ATTCTTTCAA	GTACAAATTA	AAGAAATCTG	9540
ATGGATTATA	AAAAGAAACT	TCATATCCTT	TAGATCTTAA	TAAATCATAG	ACAA'TCTCAC	9600
CGTAAAGATA	ATCACCGTAA	TTACTTGAAC	CATAATCCGT	TGCACCATGT	AACATAATTT	9660
TTTTCCACCAC	TATTTTITCA	ACCTCCATAA	AATAAATATC	ATAATCAAAC	TATACATAAT	9720
AGGACGATAA	ACATCTATTG	AACTACTTCT	CACATAAAGC	AATAGTTGAG	AAATTACCGA	9780
AAATATAATA	ACTTTTGAGA	TTTACTTGT	TTGAAAAGCT	GTAAATTTA	ATCGCCATCC	9840
ACTAAATATT	CCCAAAACAA	AACTCCAAAA	AACACCACCA	TAGTAACCA	AGTTCCAAAA	9900
TAA'TTCTTCC	ACAAAAGTAG	AGCCTACAGG	TAACCCCAAA	AATTTATTAA	TAACAACCGT	9960
CGCTGATGCT	TTATCAAAAA	AATCACCAC	TAACCATCCA	ATAGGAJAAA	TTGATAGGAT	10020
AGTGGGTAGA	AATGTATCAT	CATATTCATA	TGGAATGCTA	CTAGGCACAA	CAGTTACAGC	10080
AGAAGCTACT	GTTAGGCTGG	TCAGTCCCGA	CTCTGAAAT	ACTTCCCTTA	GTATATTCTT	10140
TACAAAATCT	AATGAAGAAA	AGGAATCAAA	TAAGTATATA	CCTATAGTAT	TCAGTCCGAA	10200
ACGGTGGCCC	CTAATAACAA	CTAATACATT	TANTAGAAAT	ACAGTACTA	TTAAAAATAC	10260
AAGTACTCTT	TTCTTCGAAA	AAGTAATCCC	TAAAGATTGT	GTGTATACTA	AAACCAACGC	10320
CAAGATTGAA	AACACCTGGA	TTTTACGACT	TCCTGTTAGG	ATCATTATCA	AAATTAGGTA	10380
AAACAACATT	ACCCAAAAAA	TAGTACGCTT	TATAACTCGG	GACAGCTTAT	CTGAATAAAA	10440
CAAGGAGAAC	ACACCAGGAA	GCATATGTAC	TCCTAAATCA	TCTATTATTC	CTGAACATGC	10500
TGCCCTCTGAA	TATGTGTAAT	AGCTATTGCG	CGCTCTAACT	GCTAGTACTG	TTTTAGAAATC	10560
AGTTATTACC	CTAGAAATTA	AGGCCACTCC	TGTTAAATC	CTACCCGCAT	TGTACAAAAAT	10620
TTTCTCTTCA	TTTTCTGTAT	AATTTTGTAC	TTCTGAATGA	TAATGTACCT	TTCCATCACT	10680
ATAAAAAAAT	AAATAGCCTA	CAGAAATACA	AAACAAATC	CAATTTATAA	AAATATATGA	10740
ATGAATTAAT	TCTTCATTAT	TATAGAAGIT	ACTAGGGCTC	CACAGCAGAG	TTGTTTGAJAA	10800
CCCCATATAC	TCATTGAAAA	TTAATCCAAA	CATAAAAAAA	TAAGATAAAA	TCAGATACCA	10860
TACAGAAAAA	TCATATAATC	TAAC'TTTTGT	TAAAAATAAA	CCAGTAATTT	GAAAAATAAT	10920
TAGAAAGCAA	ACCCATATAA	ATATAGACOG	AACATAATTA	GATATAAGAA	AACCATTAAT	10980

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CCAMTTATCG AGAGTCCAGA ACAAGTAACA GAAAGCAAT A7AAAACTTA ATGTCACTAG	11040
TGTCACTCTA CAATATACAT TTGTCTGCAT CTATATCTCC TTTATTACAC ACATTTCTTG	11100
ATAACGATTC AATAAATTAC TAGCTTGATA ACAAAATCA TAGAGTCCAT CTGTCACTAT	11160
GTTATTATT TCAAAACGAT TGCATTCCTC AGATGTTAAA GACAGACTTT TATCTTTCCA	11220
TAGCAACACA GACTCTCGT TGATAGSTAA GTAACATAATG TTTTGGTCA CATCTACTTC	11280
TTGCGTCACT GTATCTGACG ATAAAAATTG TAATCCCGAT GCCTGAGCCT CTACTAGAGA	11340
AACAGGCAAC CCTCATATT TAGACGGAAG CAAAAAACA TCCATCGCAG ATAATAATC	11400
AGAAATATCA GTCTTCTCC CTAATAATAG CACATATGGG GTCAGATTTA GTTCTAAAGC	11460
TTCTGTGTTT AATTCTGCTT CATCTCACC ATTACCAACT AGGAGTAAAA TAACATTTGG	11520
TTTGATTAAA ATGAGTTCTT TTAACAAGTT AAATAAATAA CTTTGGTTTT TTTGATCTGA	11580
TAGGCGAGCT ACATTTCTTA ATACGAACCT ATTTGACACA TCTAATCTCT TACGACATTT	11640
TTCTCTAACA TCTGACAAAA ATTGATACTT TTTCAAATCA ATTGCATTAA AAATAATTTC	11700
AATTTTTCCG TCTTTATACG CTTTCTCTCC ATATAACCAC TTAGCCGAAT CTTCCCCACA	11760
TGCAAAACCAA TGAGTTGCTA AGATTTTAC CAAAATTGTT ACTAATTATC GCAATACTTT	11820
TTGAAAACGT TTTTCTGTTA CATAGGCCAT ATGACTATGA ATAACTCTAA TTTTACAACC	11880
AATTATTTTA GATAAGATCA GACCAATTGC AGATTTATAG CCATGGCAAT GAACATATTC	11940
ATAATCTCCT TTCTTTATTA TTCTAGCAAG AGAGAGAAAC TGATGTAGAG GCTTTTTCTT	12000
TAAATAGAGGC ACATGATAAA CCTTTGCACC CAATTTCTTC ATTTATCTCT CTAATAATCC	12060
TTGTCTCTTT CCAGGCACAA TAAAAACAAA TTGAATTTTT TTCTATCAAA TGTGAGAAAT	12120
ATAGTTGAAT AGAAAACCTT CTACTCCACC ACTATCTAGT GTTGTAATAA GATGTAATAC	12180
TTTAATCAAT CTCTCTCCTT AAGCTTAAGA TTGCTTCTC TAATTTCTAT TCTGTTTTTT	12240
GTTTTCTTAA ACTAATTTCTG TCCATGAAGT TATCACAATT CTTAATTAGC TGTTCCTGT	12300
CAAGGTTTTG AATATACAAA GCCAAACAAAT CTTTTCCGA TTCACTCTTC ATAGGTAAAA	12360
CGAAACCAAA ACCATTCTCT ATTGACACTT TTTCATATA AGTATCTTCA CAACTAAAA	12420
TAGGTTTATA CAACAATGCA GCAAGTAGA GTTTATTAGA CAAAGCATAG TCTAGTAAGG	12480
GAGTGTGATT CCGGTATAAA TTCAAAACAA CATCTGTATT CTTATAAAA GACATGATAT	12540
CTTTAGGCTG GATGTGTCC ACCAAGTTAA CATGCTGAT ATTTTTTCT TGACAAAAAT	12600
CCCTTAATTC TCCTGCATTA GTACCTATAA AATTCAACTG AAATCGACTG TCATTTGCAA	12660
AAAAATCGAT TATTTTTTTA TTTTGTCTTT GAAAACGAAT TAAACCAATG TAGGAAAGTT	12720
GAATGGGAAA CGTACTATTA TTTTATACT GCTTTACCTC GTTTAATCTT ATCATATGG	12780

GTAGGTTATG GGTAGTAAAA TACTCTCCCA TTGGTAAAAA AAATTTATAG CGTCTGAAG	12840
AAACGATATT CATTAAAGAA TTTTTCACCA ATTGTTCTTG AACCAACGA TAAACCAAAA	12900
ATTTTTCATA ACTGTAATCA CGAATATCAT AATATATCT ATTTTAAAT GAAAGAGAA	12960
GAAATCTAC TAAATGAAG GACACAATAC TATGTAAAG CAATATCATA TCATAATCAT	13020
TTCTTTTAG CTCTTTTATA ATTTCTTTTC TGAATTTTAC ATAACTAAT ATCTTACTTA	13080
ATTTTCCTTT ACCAGAAAA GAAATACGAT AGTAGTTTTC TTTTGTAAATA ATCTCGTTAA	13140
TATTTCTTAT CCAATATATA ACATCGTAC TAAATAGACAG TTTCTTCAAT AATTTCTTAT	13200
AAAAATTGAA GTAAGGAGTT AGATATATAT TATCAGATAG TATAAACAGT ACTCTCATTA	13260
AATTATTTCT TCTTACTTTC CCTCTCTAAA CATGTCTCCA GTTCGAGCAT AAACGTGCTCT	13320
TTTGAAAAGT GATTTTCATA GTAACAAAGA GCTTTCTTTC CTAACCTCTCT TGTCTCTTAA	13380
ATAGATAACA TACTAAATTT ACAATATTT TTTGCCAAT GTTTTACATC TCGTTCGGGA	13440
CTAACATATC CACAATTTGC TTCTCTTACA ATTATTTTAG CATCTCCTGA AATTGCACCT	13500
ATAATTGGTT TGCGTCGGC CATATAAGAK TGTACCTTCC CAGGTATAGT ACGAGAAACT	13560
ATCGAGTCTC CTATTAAGA AACTAACATA GCATCTGATT TTTTATAGAA GGATGCGATT	13620
TCCTCCAAAG AACGTCTTCC ATAGAAGGAA ATATTCTTAA ACTCCAATC ATGAGCTAAT	13680
GCTTTCATGC TTAACTATC CGTACCATCT CCAACAAAAT GAAAATGAAT TTTCTTGGTT	13740
AAATTGGTAT TCTTCTCTAT CAAACTGGCA GCTTTCAAAA TAGTTTCCAA ATTTTGTGCT	13800
TTGCCAATAT TACCGCAAA AGTTAGGTCA ACACCTTCTT TATTAACTAT AGATTCATCA	13860
GGGATAAAAA GATCTTCTGC ATATTGTGAC AAATATGTAA TCTTTTGTTC GGATATGTCA	13920
AATTGCTTCA CAAAATAATT TTTAAATGAT GGACTAGTGA CAAATATATA ATCACTAGCT	13980
CGGTAAACTT TTTTGTAGAT AAATTTAAAC AGCTTGAAAA TCAAGCCATC TTGTTTCACCT	14040
CCACCTACGG TTAACATATC TGGCCAAACA TCCATACAAAT ATAGAAACAT CGGTTTCTTA	14100
TATTTTTTTT TATAAGCCAT AOCAGCCCAT GCCATCATAA CTGGAGACAA TTGGTTAAAG	14160
AATACACAGT CAAAATTCGA TCCATCTTTC GTTTTATACC TCCCAATAA AACTCCTAAA	14220
GTAGACTAA TTGCAAGCT AAAATAATTC AACATCGAA ATACAACACT TTTTTCCTTA	14280
GGGATTGTAT AAGAAGATA TATCGTAAAC CTTCTATAA TCTCACGTCT TTTTTCATTA	14340
TGACGATAAT CTGATATAT CTTCCTTCA GGGTAATTAG GAATCCCGAC CAAACACAG	14400
ACTTCATGCC CTTTTCGAA TAAATCTTCA CAAATATCTG ACAACCTGAA TGGTTCGTGC	14460
TTATAATGTT GCAACAAAA TAGTATTTTC ATTTGTCAAT TTAATTTCT TCTTACACAC	14520

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TACCCCTAC AATACCTTT CGTTTCAGTA CGTAAGGTAT TGTCPTAACT ATACATCTAA	14580
TATCCATFAT CAAGACAGA TGTTTAAACAT AGTAGCCATC TAACTCCGTC TTCACTCTAA	14640
CAGACAAGT ATCACGCCG TTAATTGTGT CCCATCCAGT TAACCCCTGGC AAGATATCAT	14700
TTGCTCCATA CTATCTCTC TCTGCAATCA AATCTAGTTC ATTTATACCC GCTGGTCTAG	14760
GACCTACAAT ACTCATATTA CCAACAGAA TATTAAACAA TTGTGTAGT TCATCCAAAG	14820
ATGTTTTTCG CAGAAAGCC CCTACTTTTG TAATCYATTG CTCGTGATTA TATAAGITTC	14880
GAGCGGCCAT ATTTTTAGGT GCATCTATTT TCATAGACCT AAATTTCAAA ATATAGAAGT	14940
ATCTTTTATG AATACCAAG CGTTTTTGCT TAAATAPAAC CGGACCTTCT GAATCAAGTT	15000
TAATCGCAAT TGCAATTATC ATAAAAACCG GACACAAAT TATTATCCCT ATTAAGATA	15060
ATAATATATC ACCTAATCGT TTTATTATAC CGTACATAAA CAACCTCCAA CTATAAATTC	15120
TATTTCCATT TTTTCATCTA TTTCCATTTG ACAAAATAAA TCAGGCACTA CATGCAACTA	15180
CAGAACTACA ATATATATTT GGTCACTCAA TGATTTTCAG AAATATAATT CTTTTATCCT	15240
CTACGTCAGA TAAAACTTTT CTCCATCTAA ACAAAATTTA TTGTTTTCAG TAATATATGA	15300
GTTCCTCAATA ATGAATTAGA AGGTCCAGTT CAATTAATCT TCCAAATAGA CCGAATATTA	15360
TTTGAAGACA TATCGGTTTC TGAAATGCA ATCAGTACAT AAGCTAATAA ACTGATTAAGT	15420
ATGCTCTGTA AGAATGCCAG AGTTATATTG TAGTCCCTTT CCATACTATA TTCATTTTAT	15480
TTTTTACCAT AATTTCCATA GGAACCGTAA ACTCCATACT TATTAACCGA GATATCCAA	15540
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TGGATATCAC GTTATTTGCG CTCACCTGTT GCTGTTACCA AGATGGAGCG ATCACACTTT	15660
TGAGTGATAA TTGCCGCTC AATAACAATT CCAATAGGCG GTGTATCAAT AATGATATAA	15720
TCAAAATATP TACGCAATGT TTCAATCATA TCATTAATAA TTTTACTTTG TAACAAGGCT	15780
GTAGGGTTTG GTGATACAGA TCCCGATTGA ACTACAAATA AATTTTCAAT ATTTGTATCA	15840
CATAAACCGT GAGATAAATC AGCTGTCCCA GATAAAATTT CTGTTAGCCC TGTAATTTT	15900
TCACGAGATT TAAAACTCC TAACTAATCT GAAATTGCGAG TATCGCCATC GATCAAAAGA	15960
GPTTTATAGC CTGACGCGC AAACGACCAT GCTATATTTA TGGAAAGTAGT TGTTTTTCCT	16020
TCCCCAGGTT TAACAGAAGT AACGGAATTT ACTTTTAGT TATCTCCGCT CAACGTGATA	16080
TTTGTACACA AGGCATTGTA ATATTCTTCT GCCTTCTTAA TGAAGTCCAG TTTTTTTTGT	16140
GCTATTTCTA ATGTGGCATC CCTTCTCTCC TATTTCAACT TACCCAAAGTT TGGCACAACT	16200
CCCAAAAGTG TCATCTGCAA TGTAATTTTC ATATCTCCG GACGTTTCAC ACGAGTATCC	16260
AAAAGTTCAA GATGAAGAAC TATAACACTA GTTCCAAATC CCCCTGCCAA AAAACCAAT	16320

AGTGTATTGC GTTAAATATT TGGGGAAGAC GGGGATATCG CCGGCCCTGC CTCCTCCAGT 16380
 GTGTGCACGT CAGAAACAGC AGTAATACCTG ATATTTTTTT GAGCAGCTAC TTCTCTCAAA 16440
 GAGTTAGCGA TAGGGCTTGC CTCCTCAGGA ACTCGATCAT TAACTGAAAT AGAGACAATA 16500
 CGGGTATCAA CTGGTACTGT CACTTTAAAT TTATTAGCCA AACCTTTTGG CGTCAAACTCT 16560
 AGTTTCAAAAT CAGAAACAAC TTCTCTCCAA ACATCCTGCG AAAGGATAT CTCACGGTAG 16620
 TCTTTTACCA GATAAGTTCC TGCCTGCAAA TCCTGATTTC TCAACCCCGG CTGTCTCTCT 16680
 TGATTGGGAT TCACATACGA AATTCGCGTG GTACTGTGAT ATTCTGCTCT AACAAATAAA 16740
 GTGCTATATG CAAAAGCCCC CGCACCTGTC ACAAGTGCCA CTATTAATAAT CATTAGCTTG 16800
 CGTTTCCACA AGCTTTTAAC TAATTGAAAT ACATCGATT CTATCGTATT TTGTTCTTTC 16860
 ATCAITTTCTC CTAAATTAGT TGATCCATTA CAATTTTTCG AGGATTGTCT ATAAAAAGTT 16920
 CCTGAGCCCT CGCTTCTCG TATTTTTCGG TAACAAGGTC ATATGCTTCT GCCATATGAG 16980
 GAGGTCTACC GTCTAGATTG TGCATATCAC TTGCAATGAC ATGAACCAA TCCTGCTCTA 17040
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 GGACATCTGA ACTATTACTT TGGGTGTAA AGCCCATATC GATCAGTTCT CGAACGGGTT 17160
 TTTCATTATT TTCAAGAGCA TCATAGCGCT CAATGTGGGC AATGACTGGA GTAATCCCA 17220
 ACATCAAGAT CTGTCTAAG CGGCTATGAA TATCCCGATA AGGAGTGTTT ATACTAAACT 17280
 CTATCAAGGC ATAAAGACTA TCATTGAGGG TCGGAATCCG CTTTTTTTC AGCTTATCCA 17340
 GAACATCTGG TGTGTAAATA AITTCAGCCC CGTAAGCAAT GAACCAAGTCA CTCGCCACTT 17400
 CCTTAGCTAT TTCCCGAACC TGAAGAAAGT TTTCTGCTAT CTTCCTCTCC GGAGTTTCAA 17460
 ACATGCCCTT GCGACGGTGA GAGGTAGAAA CAATGGTTCC CACCCCTCTG CTGTAGGATT 17520
 CTGCCAAGAG AGCCTTGCTT TCCTCTCTTG ACTTGGGACC GTGATCTACA TCAAAAAGGA 17580
 TATGGGATG GATGCTATC AITTCATCTA CCTCCATCA CATCTGTAT AGCTGCTTTA 17640
 ACTACAGCTA AACTACTATC ATCTATTTC ATCACATAGA GGTACTGTCT TGGCATTTGA 17700
 TAAGAAGGAA GATCCATCCG ACCTGTCCCT TTTAAATCTT GAGAAATTAC TTTATAATTC 17760
 CCTCCACTTT CTAAGTACG ATTGACCAA TTATCATGCG TCTCAAGTGG CATATTTGTT 17820
 TGGATAGAAAT CTGCAAGCT ATTAATGATC GTACTATAAT TTTTCAGCAC TTCGGTTGAC 17880
 GTTAATTTTT GAAGGATAG CACAATCACC TTTTGTGAT GCGCCGCCGG GTCACGATCG 17940
 CCATCTGCTA GGGAGTAGCG CTCACGAACA AAACCGAGAG CCTGTCTGTA ATCAAGATGA 18000
 ACATTGCTCG CAGGGTAATA CTTTCCATTC GTATGGGCG TAAATTTCTG ATCATATATA 18060

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ACATCAATTC CACCCACAA ATCAATCAAT TTCAAAAAAG AAGTGAAGTT CANTCGACA	18120
TAGTAATTGA TATCCACTCC ATAGAGATT TCTAAGGTGT GAATGGACGA ATCAACTCCA	18180
TAAATGCCCG CATGAGTCAA TTTATCTTTT TGATTAATTTC CACCACTGCG GATTGGTACA	18240
TAGGCATCAC GTGGCGTTGT GGTCAAGAGG ATTTCTTGG TATCTCGATT GACAGTCATC	18300
AGGATGTTGA CATCTGATCG CGACACCGAA CTAATAGGAC CATAGGTGTC AATTCCACTA	18360
ACATAGATAT TGAAAGACTG ACTCTTAGAC GTCTTAGGAG CTCTACTTT TTTAGTGAAT	18420
CCCTTAGTAT AATCTTTTT TATCTTCGAT GCGTAGTCTG GATACTCTGA CTCGATGATG	18480
TTTTCAAGA CACTATTTAG GACATGGGCC TTAGTCTCCC CTGCAATCAA ACTCTTGTAA	18540
GCTGCCAAGT AAGACGAAC CTGGTTGACC GTCAATCGG TATCTGACT TGACTTGATA	18600
TCAGTAGTA ATTTCTGAAT ATTTTCATTA TTAGTCCCAG TCGGTGCTGT CACACTGTC	18660
AGTTGCGTAA CATTTCTGAT CTCACTATCT GCTAAAACAG CGACACTGAT TGAATATCT	18720
GAGTAATTAG AAGTCGCATT TAAACGATT GTCAATCCAA CAACTGCTG TACTGCAAG	18780
AGCGACACAG AGCTGACAAG GATAGAGAAC ACCAACAGAA AATAGTAAA CTTTTCAGCT	18840
TTTTTATAGA TANTCAAGAG TAGCCCTACC AAGGCAACTA GTAGACTAA CGCAGTTACC	18900
ACTAGATTAA GATATCTAAA AGCAAGGATA TTGTACTTAA AGATTAAAGAA CAATAAAAAA	18960
CAAACTAACA ATAAATAAAT AGTCAGCAA ACTATATTAA CACTTCGCTT CACTTCTGT	19020
GAACGTGATT TTTTAAAAAG TCTACTCATG ATTAATACCT ATACATTGAA CATTTATAGA	19080
TTATATCACT TTTTACGGT AATGCTACA CCTTATTTT TACTATCTGC ATCTTTAAGT	19140
ATCTTAGTAG ACTTCCCGCG AAACAAAAAT ATAGTAAAT GAATTAAGAA CAGAACAAAT	19200
CGTTCAGAGC AGTCAAAATG ATTTCTAACA ATGTTTTAGA AGCAGAGGTG	19250

(2) INFORMATION FOR SEQ ID NO: 36:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 21706 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 36:

AAAGTTGAAA GACTGCTAGC TGTTTTGGAT ACCAATCGTT TCACAATACA GAGCAACAG	60
TATACAAAGT TGTGTTTTGG ATGTAAGCTT CTGTATGAC AATCCAAGA AAATCAAGAA	120
ATTGCTGACC TTCATTTTTT TGCCATTGAC CAACTGCCGA ACTTATCTGA AAAACGCATT	180
ACCAAGGAGC AATAGAGCT TCTTTGGCAG GTTTATCAAG GTCATAGGGG GCAATATCTT	240

GACTAAGAAG ATGATTATCG TATTCTAAA TCCATTTTAA	300
ATAATGCAGGA AAAATTTTGAA TTATGAGGAA GACTAGATGA	360
ACGACTCAGG CAACCGAGCC GCCAAATTTT GACCTTTTTT	420
CTCTTAGCCT TAACCTTTTAA TACAGCCCAT CGCTATCGTG	480
TTTTTCCAAA TCTTGAGAC TGTTCAGTTA ATCCTTCTTT	540
CATATGCCAC TGTCAGAAAG CCTACCCCTT TACCATTGCC	600
CTCTTGCTTC CTGGTCAATC CAAATATAAA CAATACTTTG	660
ACATTAGCAG CCTTTCTTTA TCCAGTGCCA GATGCTTACC	720
CTATCCTTTA TCTTTGTCA TTTAGCACTC TTGGGGAAC	780
CAGTATAATG CGCGATTGCT GGTGTGAAAG GGAATTTTTT	840
GCCTTGATTT TTTGGTCAA TTTGGTGACA GGTGGCATT	900
CCATTGGTTG GCGATCACGG TCTAGTAGCT AATTATTAC	960
GCTACTATCA GTTTGACTAA GAAAATCTTA GAATCTTTT	1020
ATGATTGCAA AGGAAGCTTA ACACAGAGCT TTTCTTTTTT	1080
GCAGCTTAAT AAATAAGAAAT TTCTGAATAG ACAAACTCAA	1140
GAAAAAGCA AGCAGGATTA AATTTTTTGT GTTATAATAT	1200
TGTTTAGCTA TGGAAATAA CGAAGTGCGA AACTTGAAG	1260
TGGCTAGAGA AGCTTTTTT ACAGGTCTAG ATATTGGAAC	1320
TGGCCGAGCA GAGAAATGGT GAATTAATG TAATTGGCGT	1380
GTGTAAAGCA TGGAAATTAT GTTGATATTG ATGACGAGC	1440
TTTCCCAAGC GGAAGAAAG GCAGGCATTT CGATTAAATC	1500
GTAATCTTTT GCAGGTAGAA CCAACTCAGG GGATGATTCC	1560
AAATTACGGA TCAAGATGTT GAAAATGTTG TCAAAATCAG	1620
CTGACCGTGA AGTCATTACC TTTATTCCTG AAGAAATTTAT	1680
TTGCTGACCC ACGTGGCATG ATGGGGGTTT GCCTTGAAAT	1740
GACCTCGTAC TATCTTGAC AATTTCGGTA AGACGGTTGA	1800
AAAATGTTAT CATTTACCA CTAGCAATGG TTAGCTCTGT	1860
AATTTGGTGC TACAGTGATT GATATGGGG CAGGTCAAC	1920
ATCAAGAACT CCAATTACCA CATATCTCC AAGAAGTGG	1980

	360	
TCTCCAAGGT TTTGAAAACC TCTCGCAANT TAGCGGAAGG CTTGAAACTG AATTACGGGG	2040	
AAGCCTATCC GCTCTTTGCA AGCAAAGAAA CCTTCCAAGT AGAGGTATTAT GGAGAAGTAG	2100	
AAGCAGTCGA AGTGACGGAA GCCTACTTGT CAGAAATTAT TTCTGCACGA ATCAAGCACA	2160	
TCTTGAACA AATCAAGCAA GAATTAGATA GAGGCGTCT AATTGACCTC CTTGGTGGTA	2220	
TTGTCTTAAT CGGTGGGAAT GCCATTTTAC CAGGTATGTT TGAGCTTGCT CAGGAAGTCT	2280	
TTGGCTCCG TGTCAGCTT TATGTTCCAA ATCAAGTTGG TATCCGTAAT CCAGCCTTTG	2340	
CGCATGTGAT TAGTTTATCA GAATTTGCCG GTCAATTAAAC AGAAGTTAAT CTTTGGCTC	2400	
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TGCAAAAAAC AGCTCAGTTT GTACAATCAA CGCTGTGTC ACAGCTCCT GCTCCAGAAG	2520	
TAGAGCCGCT GGCGCCTACA GAACCAATGG CGGATTTCCA ACAAGCTTCA CAAAATAAAC	2580	
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AAATAAATTA TGACATTTC ATTTGATACA GCTGCTGCTC AAGGGCAGT GATTAAGTA	2700	
ATTGTTGTC GTGGAGTGG TGCCAATGCC ATCAACCGTA TGGTCGAGA AGGTGTTACA	2760	
GGCTAGAAAT TTATCGCAGC AAACACAGAT GTACAAGCAT TGAGTAGTAC AAAAGCTGAG	2820	
ACTGTTATTC AGTTGGGACC TAAATTGACT CGTGTTTGG GTGCAGGAG TCAACCTGAG	2880	
GTTGTGCTGA AAGCGCTGA AGAAAGCGAA GAAACACTGA CGGAAGCTAT TAGTGGTGCC	2940	
GATATGCTCT TCATCATCTG TGATATGGGA GGAGGCTCTG GAACTGGAGC TGCTCCTGTT	3000	
ATTGCTCGTA TCGCCAAGA TTTAGGTGCG CTTACAGTTG GTGTTGTAA ACOTCCCTTT	3060	
GGTTTTAGAG GAAGTAAGCG TGGACAATTT GCTGTAGAAG GAATCAATCA ACTCTGTGAG	3120	
CATGTAGACA CTCTATGAT TATCTCAAAC AACAATTTGC TTGAAATTGT TGATAAGAAA	3180	
ACACCGCTTT TGGAGGCTCT TAGCGAAGCG GATAACGTTT TTCGTCAAGG TGTTCAAGGG	3240	
ATTACCGATT TGATTACCAA TCCAGGATTG ATTAACCTTG ACTTTGCCGA TGTGAAAACG	3300	
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GTGTAGAAG CGGCACGTAA GGCAATCTAT TCACCACCTT TTGAACAAC TATTGACGCT	3420	
GCTGAGGATG TTATCGTCAA CGTTACTGGT GGTCTTGACT TAACCTTGAT TGAGGCAGAA	3480	
GAGGCTTCAC AAATTGTGAA CCAGGCAGCA GGTCAAGGAG TGAACATCTG GCTCGGTACT	3540	
TCAATTGATG AAAGTATGCG TGATGAAATT CGTGTAAACG TTGTTGCAAC GGGTGTTCGT	3600	
CAGACCGCG TAGAAAGGT TGTGGCTCCA CAAGCTAGAT CTGCTACTAA CTACCGTAG	3660	
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GAATTGCCAA AACAAAATCC ACCTCGTTTG GAACCAACTC AGGCATCTGC TTTTGGTGAT	3780	

TGGGATCTTC	QCCGTGAATC	GATTGTCTCT	ACAACAGATT	CAGTCGTTTC	TCCAGTCGAG	3840
CGCTTTGAAG	CCCCAATTTT	ACAAGATGAA	GATGAATTGG	ATACACCTCC	ATTTTTCAAA	3900
AATCGTTAAG	TAAATGAATG	TAAAGAAAA	TACAGAACTT	GTTTTTCGAG	AAGTTGCAGA	3960
GGCTAGTCTG	AGTGCTCATC	GAGAGAGTGG	TTCCGCTCTCT	GTCAATTGAC	TTACCAAGTA	4020
TGTAGATGTA	CCGACAGCGG	AAGCCTTGCT	TCCCGTAGGT	GTCCATCATA	TGGTGAJAA	4080
TCGTGTAGAT	AAGTTCTCG	AAAATATGA	AGCTTTAAAA	GATCGAGATG	TGACTTGGCA	4140
TTTGATTGGT	ACCTTGCAAA	GACGTAAAGT	GAAAGATGTC	ATTCAATACG	TTGATTATTT	4200
CCATGCAATG	GACTCAGTAA	AGCTAGCAGG	GGAAATTCAA	AAAAGAAGTG	ACCGAGTCAT	4260
CAAGTGTTTC	CTTCAAGTAA	ATATTTCTAA	AGAAGAAAGC	AAACACGGTT	TTTCGAGAGA	4320
GGAACTGCTG	GAAATCTTGC	CAGAGTTAGC	CAGACTAGAT	AAGATTGAAT	ATGTTGGTTT	4380
AATCAGCATG	GCACCTTTTG	AGGCTAGCAG	TGAGCAGTTG	AAAGAGATTT	TCAAGGCGGC	4440
CCAAGATTTA	CAAGAGAAA	TTCAAGAGAA	ACAAATTCCT	AAATATGCCCT	TGACCGAGTT	4500
AAGTATGGGA	ATGAGTCGTG	ATTATAAAGA	AGCGATTCAA	TTCCGGTTCCA	CTTTTGTTCG	4560
TATAGGTACA	TCATTTTTTA	AGTAGGAGAG	AACCATGTCT	TTAAJAGATA	GNTTCGATAG	4620
ATTTATAGAT	TATTTTACGG	AGGATGAGGA	TTCAAGTCTC	CCTTATGAAA	AAAGAGATGA	4680
GCCTGTGTTT	ACTTCAGTAA	ATTCCTTCACA	GGAAACGGCT	CTCCCAATGA	ATCAACCTTC	4740
ACAGTCGGCT	GGACAAAAG	AGAACAAATAT	CACCAGACTT	CATGCAAGAC	AACAGGAATT	4800
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 TGAAACAATC AATACGACCG TGTGTCTCAG TCCAGCCAAT TCTTCATTAA AACGACGTGT 18660
 TTGAGTTGAG CAGATGCTGT TATCGATAGA AGGAACGACA CTCAGACTT TTTTCTTGCC 18720
 ATCAAAATCA GCCAGAGATT TTTTAGAAAG ATCTGTTGTA GTAAGAGAAA AATCAAGCGC 18780
 CTGTGCGCG ACTTGATGTT GTTTACCTGT AAAGCTCACA GGATTTCCGA GAAAAGTTAT 18840
 CATAGGATAC TCCAATCTTT TTTCTTCCAT TTAGCTGAA ACAGTCGAAA TTTTCCAATG 18900
 ATTTGACCGG AATATATGGC ATAGAAAAAA CGCCAGCTCA TGTGAGAATG ACGTTTTTCA 18960
 TAGGTTTATF TTGCCAATCC TTCAGCAATC TTGTCAAGGT TGTATTTCAT CATGCTGTAG 19020
 TAGCTGTGCG CTCTTTTACC TTGTTCTGCG ATAGAGTCAG TAAAGATTGG AGCGTAGATT 19080
 GGGATGTTG TGTCTTGAGA AACAGTTTTT ATTGGACGGT CATCCACACT TGATTCTACA 19140
 AAGAGTGATG GAATCTTTGT TTGGCGAAGT TTTTCAACCA AGGTCTTGAT TTGTTCAAGG 19200
 GTTCTCTCTT CTTAGTATT GATTTCACAG ATGTAAAGCA TTGGGACACC ATAGGCTTTA 19260
 GAGAAGTATT TGAATGCTCC TTGCTGCTT ACAATGAGTT TCTTTTCAGC AGGGATCTTA 19320
 TTAAATTTAT CTTACTTTTC TTTATCAAGT TTGTCTAATC TATCAGTATA TTCTTTGAGA 19380
 TTTTTCATCAT AGAATCTTTT ATTGTTAGGG TCTTTGGCGC TCAATTOTTT GGCGATATTT 19440
 TTAGCAAAAA TAATACGTTT TTCAAGGTTA AGCCAAGCGT GTGGGTCTTC TTTTCTTTTT 19500
 TCATTTTGAC CTTCAAGGTA GATAACATCA ACGCGCTGCG TGACTGCGAA GTAGTCTTTG 19560
 TTTTCAGTTT TCTTGGCATT TTCTACCAAT TTGTAAACCA AAGCATTGCG ACCTGTITCA 19620
 AGGTTGATAC CGTTATAGAA AATCAAAATTA GCCTCAGAAG TTTTCTTAAC GTCTTCAGGA 19680

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AGTGGTTCGT APTTCGTGTGG GTCTTGCCCA ATCGGAACGA TACTATGAAG GTCAATTTTG	19740
TCACCAGCAA TATTTTITAGT AATATCAGCG ATGATTTGAGT TTGTAGCAAC AACTTTTAGT	19800
TTTTGACCAG AAGTGTGTAT TTTTTTCCG CTAGCACATG CTACAAGAAAT GATTGCAGAA	19860
AGAAAGAGAA CGAGTAATGT ACCTAATTTT TTCAITTAGAT CCTCCAATTT ATTAGGGCTT	19920
TGCCCTTAT TTTAACAAAT GTTTATTTTT CAGTPTCAAA TATGTTGTT TGGGAGCGAT	19980
AAAGAACTTA ATGAGAAAGA AACTAGCAGC TGTAAACAG ATACTAGAAC CTGCCGCAAC	20040
ATTAAJACTA TAGCCAATAA AGAGTCCCAA AACTGAAGCA GTAGCTCCGA AGGTTGAGGA	20100
AAGGAAATC ATACTTTTCA GACTATTAGC ATACAGATAA CCACTTCCAG CTGGGGTAAT	20160
CAGCATGGCT ACAATCAGGA TAGTTCGAC ACTTTGCATG GCTGTACAG ACACGAGAGT	20220
CAGGATGACC ATGAGAAGGT AGTGATAGAA ATTGACAGGC ATTCCCATGG CTTTAGCCAA	20280
GAGTTCACTA AAGGAAGTTA TCAAGAGTTG CTTGAAGAAA ATCCAGATTA ACAAGAGAT	20340
AGCTGCCCCC ACACCCATAG TAATAAACAT ATCCGTATCT TGGACGGCCA GGAATTTACC	20400
AAAAAGATA TGGAAAAGGT CAGTTGAACT TTTAGCGACA CCAATCAAGA TGATACCGAG	20460
GGCTAAGAAA GAAGAAAAGG TAATGCCGAT GCGGTATCG CTTTGTGATA TCGAGTTTCC	20520
TTTGATGTAG GTAATGATGA TGGCAGCTAG CAATCCAAAG ACAATGGCTC CGATAAAGAA	20580
GTCAAGGCCC AAGATGAAGG ATAGGGCTAC ACCTGGTAAG ACAGCATGTG AAATGGCATC	20640
TCCCATGAGT GACATCCCGC GTAGAATAAT GAAACATCCC ACAGCTCCAG CTACAATCCC	20700
GACGACAATA GCTGTATATCA AGGCATTTTG TAGGAAATGG AATTTTTGCA ATCCATCGAT	20760
AAATTTCTGA ATCATAGGTC ACCTCCATTG AAAAAAGATT GATTACGTA AGCTTCTTTT	20820
AGATTGTGTT CGGTAAAAAT TTCTTTTGTG GGACCAAAGG CAATCACTTC TCGATTGACA	20880
AGTAAGACTT GATCGAAGTA GTGGGGAATC TTGCTGAGGT CGTGGTGAAC GATGAGAACC	20940
GTCTTCCAG CTTTTTCAA ATCTCTCAGC GTATTCTATG TGATTTCCTC ACTGACAGAG	21000
TCAATCCAG CAAAGGGTTC ATCCAAGAGG ATATAGTCGG CTTCCTGCAC CAAACATCTG	21060
GCAATCAAGA CCGCTGGAA TTGACCTCCA GACAGTTGAC TAATTTGACG TTCAGCGTAG	21120
TCAGCTAGGC CGACGATTTC AAGGCCCTCT TGCACTTTCT TCCAATGTTT AGCCTTTAAA	21180
CTTCGAAAGA GAGGAATAGA GGGAAATAGT CCTAACGAGA CGCATTCCTT GACCTTGATG	21240
GGAAAGTGT AGTCGATATT GATTTTTGTG TCGACATAGG CAATTCGGTG TAAGGATTTT	21300
TTAACTTCTT TGTCATOGAG AAATGCCTGA CCTGTATGTG GGATAATTC CAACATACCT	21360
TTTAATAGTG TTGATTTCCC AGCGCCGTTT GGACCAATGA TGCCGGTAAAT TGTGTTGCCA	21420
TGGAGCACTA GTGAAATATC CTTAAGTGCC AACGTTTCTT TGTAGGAGAC ACTGAGGTTT	21480

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TCGATACGTA TCATAAACTT GTATTCCTCC TGCTCTCTAA TATACATTAA AAAAAAAATT	21540
AAGTCAAGTT AATTTTTGAA AAAATTAAAA TAATAACTGA AAAATAGATT CTAAAGATAA	21600
CTTTCCAGGAT AAATTCTTAA ATTATAAAAC GCATAGTATC AAGTGTAAAA AACTTGGAAT	21660
TATGGGTTTT ATCATGGAAA GATTTTTTAT AATAGCTAAA AAATAA	21706

(2) INFORMATION FOR SEQ ID NO: 37:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 6171 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 37:

GATCCCCAGG AAAAACCGAG GTTTCCCAA TCAATCGTA CTGTCAATT CCACCTCTTA	60
TTCATAAAC CTATTCTTA TATCTACAC TATTTTCTA AAATAGCAAG TATATTTTGT	120
AATTTTCAGA AAATTCTTCC AATAAAACC AACTCTTAGA ACTGATCTT CATTTCACTT	180
ATTTATCTTC AGTAACTACT TCCTGAAGAT AAGCGTCAAA AACTTCTTCA TGTGAAATCG	240
TGTCAGAAAT GAAGCTTCCA TTGCTAGTGC GTCTGCACAA GTTCAAGTCT TGCARTCGGC	300
TTTCATAGAT TGTTCTTTTA TTGGATTGGA CAAGCAGAGT TTGGTCGTTT ACATCCACTT	360
CGTACTGAA GAAATCGCCA ACAAACTCTT GCTCTGCAC TCCTCTGCC AAGAAGACAC	420
GATGCGGTTT GTTTTTCAC TCACGCAAGA CTTGTAATCC TCGTTTGGCA CGGCTGGTTG	480
CTAGAATTTC CTCAATGGAA ACACGTTTCA AGCTTCCACG CTGGGTCAAG AGGTAGAAGG	540
ACGAAGTAT ACAGATAAAG CCAGATTGGA GGACATCATC TTCTTTCAAA TTCAATGCCT	600
TGACACCTGC TGCCCTAGCA CCGACAACG GAACCTCTTC GATATTGAAA CGCAGGACAT	660
AACCATTTTG ACTAACCAAG ACAACATCAT CTAGTTTAA CTGAGCCACT GCTACAACT	720
GATCTGTATC GTCTTTGAGC TTAGCATACT TGACAGACT AGATCTATAG GTCCGCCATG	780
GAGTGAATTC TTTTCGCTCT ACCCGTTTGA TTGACCAAG GCGAGTCACT GCAAAGTAGG	840
TTGTGCAATC GTCAAACTGA TCCAGTACT CCACATAAAG GATTTCTTCA TTCTTTTCAA	900
AGTTTCTGAT GGTTTGGCTC AGATGCTCTC CGATGTCCTT CCAACGAATA TCTGCCAAT	960
CATGGATTGG TCTGTAGATG ACATTTCCAA GACTTGTGAA CATCAAGAGG TGCTGGGTTG	1020
TCTTGGCAGA TTGAACAAA ATCAACCGT CATCATCAG CTTCGCAATT TCTTCCAAGG	1080
TGGAAGCGC AAGGAACGT GGACTGGTAC GCTTGATGTA ACCTGCTTGG GTACGCTGA	1140

CGTAGGTATC TTCCCTCAGCG ATAAAGACTAG CTGTATCAAT CTCAATTGCT TTCGCAGTGT	1200
CTTCTAAAGA ACTCAAACGA GGAGTTGCAA ATTCTTCTT GACCTCACGA AGTTCITTCT	1260
TCATGAGATT GTACATAGTC CTTTCATCAC CGATAATAGC CGCCACGATA GCAATCTTCT	1320
CACGAAGCTC TGTCTCTTCT TCCTGCAGA CAACACATC GGTATTGGTC AAACGGTACA	1380
GTTCGAAAGT TACGATAGCC TCAGCCTGTT CTTCCTGAAA ATCATAGCTA ACTTTGAGGT	1440
TTTCTTGGC GTCCGCTTA TTCTCAGAG CACGGATAAG AGCAATGACT TCATCCAAAA	1500
TCGAAATCAC ACGAATCAAA CCTTCGACGA TATGGAGAGC TTTTCTAGCC TTTTCTTGT	1560
CAAAAGCTGA ACGCGCCAAA ATCACTTCTC GACGGTAGC GATATAGCTA GACAGGATTG	1620
GAACAATCCC AACCTGACGA GGTGTGAAAT TGTCAATCGC CACCAATATTA AAGTTGTAGT	1680
TGATTTTGTAG GTCGGTGTAC TTAATAAGT AGTTGAGAAC AAGCTCAGTA TTAGCGTCTT	1740
TCTTAAGTTC GATAGCGATA CGAAGACCAT CACGGTCAGA CTCATCACGA ACCTCAGCAA	1800
TCCAGCAAGT CTGTGTATTA ACACGACAT CATCGATTTT CTGTAGCTAGA TTGGCCTTAT	1860
TGATTTCATA AGGAATCTCA ATAAATAACGA TTTGTTCCTT ACCACCTTTT AGCTTTTCAA	1920
TTTCAGTCTT GGAACGAACA ACCACGCGCC CTTTCCAGT CTCATAAGCT TTCTGTATT	1980
CATCACGACC CTGAATAATA GCCCCTGTAG GGAAGTCGG TCCAGGCAAG AATTCCATGA	2040
GTTTATCAAT CTTTGCAGTT GGGTGGTCAA TCATGTAAAC TGCAGCATCT ATGACCTCAG	2100
CTAAATTATG GGGAGGAATG TCTGTGGCAT AACCAGCCGA AATCCCAGTC GAACCATTGA	2160
CCAGAGGTT TGGAAAGGCT GCTGGCAAGA CCGTGTGTT TTTCTCCGTA TCGTCAAAGT	2220
TCCATGCAAA AGGAACGTGC TTTTCTCGA TATCCTGAAG AAGGTAGCCT GCAATTTTCA	2280
ACAAACGTGC CTCAGTATAA CGCATAGCCG CAGGAGGATC TCCGTCCATA GAACGTTAT	2340
TACCGTGCAAT TTCAACTAGA ATCTCACGAT TTTTCCAGTT CTGTGACATA CGAACCATGG	2400
CATCATAGAT AGAAGAATCC CCGTGTGGGT GGAAATCCCC CATGATGTTT CCGACTGACT	2460
TGGCGCACTT ACGGTAGCTC TTGTCAAAAG TATTGCTATC CTATTTCATA GAATAAAGAA	2520
TACGGCGCTG AACCGGCTTC AACCCATCAC GAATATCTGG CAAAGCCCGG TCTTGAATAA	2580
TGTACTTGGA GTAGCGACCA AAGCGCTCTC CCATGATGTC CTCCAGGGAC ATGTTTGTGA	2640
TGTTAGACAT AAGATACAAA GCCCATAAAA TACCAAGTGA AAATAGAAAA TTCTTGAAGT	2700
AAGCAAACTC ACAAGAGAAT TTATCTTTT CACACAGTAT CTAGGGCGTG TTCAACTCTCT	2760
TTCAAGAAAT GTAGAGTAGG TTTTATGCA GTAAAAAGATA TTTTACGGGA ATTCTCCCG	2820
TGTTAGTTA CGATAAGTAA CCAACTATC CTGTTTGTAT TTTTCAATAT GAAAACTCG	2880
TTTTCAAAA TTAGTCTTAG TTTGTGCTT AGCCGCTCCC TTAAGCGCTT CTTTGAGATA	2940

AGCACTCAT	GCAGATCTT	CATTAAATAT	CCTGCAATTT	TTTCAAACCA	AGATTTTCAA	3000
ACTGCTTTT	CACATAGTCA	TTCCACATCG	ACTCTAATTT	CCAGTTTACT	AACATATATT	3060
TTTCTTTTAT	TAAACACTG	TCGTTTCTTC	TAGCGTAAAC	TTGACATPAT	CTTCAATCCA	3120
TTTACGGCGT	GGTTCTACCT	TATCTCCCAT	GAGAACAATG	ACGCGCGCTT	CGCGCGCGC	3180
TAAATCTTCA	ATTGTGACAC	GGATGAGGOT	ACGTGTTTCT	GGGTTCAATG	TTGTTTCCCA	3240
GAGCTGGTCC	GCATTCATCT	CACCAAGTCC	TTTGATATCGT	TGGAGGGTAG	CGCCTTTACC	3300
GAATCTGTTA	CGGAGTTCTT	CTAGTTCTCC	GTCCGTCCAA	GCCTAGGCCA	CTTCTTCTTT	3360
CTTGCCCTTA	CCTTTGGACA	TCTTGTAAAG	AGGTGGGAGG	GCAATATAGA	CATGACCTGC	3420
CTCGACTAGC	GGACGCATGT	AACGGTAGAA	AAATGTCAAG	AGCAAGGTCT	GGATATGGGC	3480
ACCGTCGGTA	TCCGCATCGG	TCATGATAAT	GATCTTATCA	TAGTTGGCAT	CTTCAATAGA	3540
GAAGTCGCT	CCAACACCG	CACCAATGGT	ATAAATCATG	GTATTTGATCT	CTTCAATTTT	3600
GAGGATATCC	GCCATCTTCC	CCTTGGCTGT	ATTGACAACC	TTACCAGGAA	GAGGTAGAAT	3660
AGCCTGGAAC	TTGCGGTCAC	GACCTTGTCT	GGCAGAACCA	CCGGCAGAGT	CCCCCTCAAC	3720
TAGATAGAGT	TCAATCTTAG	CAGGATCTCT	AGATTGGGCT	GGGGTCAMTT	TCCCAGACAA	3780
CAAGCCCTTA	TCTTCTTGT	TTTCTTCCC	ATTTCGGCTC	TCAATCACCG	CCTTACGTGC	3840
TGCTTACGAA	GCATCAACGG	CCTTGATAGC	CTTGGCGATG	AGGTTAGAAG	CTAATTCCCC	3900
ATTTTCCATA	AGGAAAAAGG	TCAACTTATC	AGCCACTATT	CCATCCACAA	CTGGGCGAGC	3960
TAGGGGGCTT	CCTAGTTTAT	CCTTGGTCTG	TCCTTCAAAC	TGCAAGTGTT	CTTCAGGAAC	4020
TAAATATAGAA	AGAACGGCCG	CTAGTCCCTC	ACGATAGTCT	GAACCTTCAA	GGTTTTTATC	4080
TTTTTCCCTG	AGAAGACCTG	TTTACGTGTC	ATAGTCATTG	ATGACCTTGG	TAATGGCAGA	4140
CTTGAATCCT	GTCTGGTGGC	TTCCACCGTC	CTTGGTGGCA	ACGTTATTGA	CAAAAGATAG	4200
AATGTTATCT	GAGATCCGT	CATTGTACTG	GAGGCTACTT	TCCACTTGAA	AACCATTTGC	4260
TTCCCCCTCA	AAGTAAAGAA	CTGGCGTCAA	GATTTCTCTA	TCTTCTGTGA	GATAAGAAAC	4320
AAATCTTGT	ACTCCATTCT	CATAGTGGAA	CTCAATCGCT	TCAATTTGTT	GCTTGTCCGT	4380
TAAAGACAAG	GTACATTTT	TCAAGAGAAA	GGTGATTTCA	TTAAGGCGCT	CTGAAATGGT	4440
ATTGTACTTG	AAATCTGTGC	TAGAAAATAT	AGTCGGTCA	GGCATAAAG	TAACCTTTGT	4500
GCCTGTTTTA	GACTTGGGTG	CTGTACCGAT	TTTCTTCAA	GTCTGACAG	GTTTTCCACC	4560
ATTTTCGAAA	CGTTGCTTGT	AAACTGGGCC	ATCACGGGTA	ATTTCACCTT	CTAACAGCT	4620
AGAAAGGGCG	TTAACAACGG	AAGAACCAC	TCCGTGAAGT	CCACCTGATG	TCTATAGCC	4680

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ACCTTGACCG AATTCCCTC CGGCATGAAG AATGGTAAAG ATAACCTCAA CAGTTGGAAT	4740
TCCCATAGCG TGCAATACCTG TCGGCATCCC AGTCCATGG TCTTGAACCG TTAGACTACC	4800
GTCTTTATTG ATAGTTACAT CAATACGATC ACCAAACCCA GACAAGGCTT CATCGACTGC	4860
ATTATCAACG ATTTCCCAAA CTAGCTGATG AAGACGAGCG CCATCGGCTG ATCCAATATA	4920
CATCCCTGGG CGTTTTCGGA CCGCATCCAA CCTTCCTAGC ACCTGAATAG CATCATCATT	4980
ATAATTGTTA ATATTGATTT CCTTTTGTGA CACAAGGAAC CTCTATTTCG TTCACTCTTA	5040
CTATTCTACA GGTTTTCCAA GGATTTTGCA AAATTTTCTT TTCTCCGATG TGACAATTC	5100
AGCAGAGATT CTCTGCTTTT CTTTCCCAAT TCATGATATA ATAGGAGTAT GATTACAATA	5160
GTTTATTTAA TCTAGCCTA TCTGCTGGGT TCGATTCCAT CTGCTCTCTG GATTGACAA	5220
GTATTCTTTC AAATCAATCT ACGGAGCAT GGTCTGCTA ACACCTGGAAC GACCAACACC	5280
TTCCGCAATT TAGGTAAGAA AGCTGGTATG GCAACCTTTG TGATTGACTT TTTCAAAGGA	5340
ACCCTAGCAA CGCTGCTTCC GATTATTTT CATCTACAAG CGCTTCTCC TCTCATCTTT	5400
GGACTTTTGG CTGTTATCGG CCATACCTTC CCTATCTTGG CAGGATTTAA AGGTGGTAAG	5460
GCTGTGCAA CCAAGTGTGG AGTGATTTTC GGATTGGCG CTATCTCTCG TCTCTACCTT	5520
GCGATTATCT TCTTTGGAGC TCTCTATCTT GGCAGTATGA TTTCACTGTC TAOTGTACAA	5580
GCATCGATTG CGGCTGTTAT CGGGGTCTCG CTCTTTCCAC TTTTGTGTTT TATCCTGAGT	5640
AACATGAGCT CTCTCTTCAT CGCTATTATC TTAGCACTTG CTAGTTTGGT TATCATTTGT	5700
CATATGGACA ATATAGCTCG TATCAAAAAT AAAACTGAAA ATTTGGTCCC TTGGGGATTG	5760
AACCTAACCC ATCAAGATCC TAAAAAATAA AATGCCAGTT CTGTACTGCC CCCAAACAGT	5820
TAGACAAATA ATTTATCCAA AGGATTTAGT TCTGTACTGC ACAGGACTAA GTCTTTTAG	5880
TTTTACCTTA ATTCGTTTGT TGTGTAGTA ATCAATATAG TCTATAATGG CTGTGTCCTA	5940
TTGATTAAAT GATTAAATG TTTTCTCATA GCCATAAATC ATTTTCGATT TTAAATATGC	6000
AAAGAAAGAT TCCATCTTAC GTTGTCTTG GCTGTGCCC TTACGTGACA TGGATGCTTG	6060
AATTCCTTA CTCTTAGGA ACCGATGATA AGAATCGTGT TGCTATTGCC AGCCTTGGTC	6120
ACTATGGAGA ATCTATTTCT CGTAGTGCTT CTCTGTGAAT GCTGTGCTCA A	6171

(2) INFORMATION FOR SEQ ID NO: 38:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 18475 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 38:

TATTCACAAAT	AAAAAAAAACGG	AGGAGTGCTT	TATGAAAGCC	TATACTTATG	TTAAACCAGG	60
ACTTGCTTCT	TTTGTTGATG	TAGACAAACC	AGTTATTGCG	AAGCCAACAG	ACGCTATTTG	120
GCGTATTTGA	AAAACCACTA	TTTGTGGAAC	AGACCTCCAT	ATTATCAAAAG	GGGATGTTCC	180
TACTTGCCAA	AGTGGTACCA	TTCTTGCCCA	CGAAGGGATT	GGGATTGTTG	AAGAAGTTGG	240
GGAAGGAGTT	TCCAACCTCA	AAAAAGGTGA	CAAGGCTTGG	ATTTCTTGCG	TCTGTGCTCG	300
TGGTAAATGC	TACTACTGTA	AAAAAGGAAT	TTATGCTCAC	TGTGAAGACG	AAGGGGGCTG	360
GATTTTCGGT	CACCTGATTG	ATGGTATGCA	GGCTGAATAT	CTACGTGTCC	CTCATGCAGA	420
TAATACTCTT	TACCATACTC	CAGAAGACTT	GTGAGATGAA	GCTTTGGTTA	TGCTGTCAGA	480
CATTCTGCCT	ACTGGATATG	AAATTGGTGT	CTTAAAGGGG	AAAGTAGAAC	CTGGTTCGAC	540
CGTAGCCATT	ATTGGTTCAG	GTCCAGTTGG	ATTTGGCTGCT	CTTTTAACAG	CCCAATTCTA	600
TTCAACCACT	AAATTGATTA	TGGTAGACCT	AGACGATAAC	CGCTTGGAAG	CTGCCCTATC	660
ATTTCGGTGC	ACTCATAAGG	TTAATTCTCT	AGACCTTGAA	AAAGCCATTA	AAGAAATTTA	720
TGATTTTGACA	GATGTCGTGT	GTGTGGATGT	CGCTATCGAA	GCTGTGTGTA	TTCTTGCAAC	780
ATTTGATTTT	TGTCAAAAGA	TTATCGGTGT	AGACGGAACG	GTTCGCAACT	GTGTGTGCA	840
TGTTAAACCA	GTGGAATTCG	ATTTAGATAA	ACTTTGGATT	CGCAACATCA	ATGTAACAAC	900
TGGTTTGGTA	TCTACAAATA	CGACTCCACA	ATTGTTGAAA	GCACTTGAAA	GTGATAAGAT	960
TGAACCGGAA	AAATTGGTAA	CTCACTATTT	CAAACCTCAGT	GAAATTGAAA	AAGCCTACGA	1020
AGTCTTTCAGT	AAGGCAGCAG	ACCAOCCATGC	CATTAAAGGTC	ATTATCGAAA	ACGATATCTC	1080
AGAAGCCTAA	GTAGTAAAAA	TATTTTTGTA	CATAAGTAAA	TAGAAATTTA	GTGATCCATC	1140
AGATGGCTGG	ATTTTTTTATC	AAAAAATTAA	GAANAGCA	TATTTCTTTC	CTTGTCTGCG	1200
GGAATTGGTT	ATAATATACG	GTACAAAGGA	ATGAATGAAT	ATGTATCGTG	TTATAGAAAT	1260
GTACGGAGAT	TTTGAACCGT	GGTGTTCTT	AGAAGGTTGG	GAAGAAGATA	TTGTAGCAAG	1320
TAGAAAAATT	GACCACTATT	ATGATGCTCT	CAAACTACTAC	AAAACCTTGT	GGTTAGATT	1380
GGACAAAGAA	TGCGCTCTTT	ATAAAAAGTAG	AAGCSACTTG	ATGACCAPTT	TTTGGGACCC	1440
GGAGAACCAA	CGCTGTGTGT	ATGAATGTGA	TGAGTATTTA	CAACAATACC	ATTTCTTTGCG	1500
TCTTTTTCAG	GATGAGCAGG	TTATCCACAGA	CGAAAAACTA	CGCTCAGGCT	ATGAAAAACA	1560
AACCACTCAG	GAAAGGAATC	GTCTTTGCCG	TATGAAATTA	AAATAGAGAA	AAGTAACCTT	1620
TTTGGAGTTG	CTTTTTTTAT	TTTCTTAAC	CTTTGCGAAT	AGTATAGGTG	AGGAGGTAA	1680

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TATGGTTCAA	GAAATTGCAC	AAGAAATCAT	TGGTTACGCT	CGGAAAAAAG	GGACGCAGGA	1740
TATCTATTTT	GTCCCTAAGT	TAGACGCCAT	TGAGCTTCAT	ATGAGGGTAG	GAGACGAGCG	1800
CTGTAAATTT	GGTAGCTATG	ATTTTGAATA	GTTTGCAGCC	GTTATCAGTC	ACTTTAAGTT	1860
TGTGGCGGGT	ATGAATGTGG	GAGAAAAAAG	ACGTAGTCAA	CTGGGTTCCCT	GTGATTATGC	1920
CTATGACCAT	AAGTAGCGTT	CTCTACGTTT	ATCTACTGTA	GGCGATTATC	GGGGGCATGA	1980
GAGTTTGGTT	ATCCGTTTGT	TGCACGATGA	GGACGAGGAC	CTGCAATTTT	GOTTTTCAGGA	2040
TATTGAAGAA	TTAGGCAAGC	AGTACAGGCA	ACGGGGACTC	TATCTTTTTG	CTGGTCCGGT	2100
TGGGAGTGGT	AAGACGACCT	TGATGCATGA	ATTGTCCAA	TCACCTCTTA	AAGGACAGCA	2160
AGTTATGTCC	ATCGAAGATC	CTGTGCAAA	CAAGCAGGAC	GACATGCTTC	AGTTGCAGTT	2220
GAACGAAGCA	ATCGGCCTAA	CCTATGAATA	TCTAATCAAA	CTTTCCCTGC	GTCAATCGAC	2280
AGATCTCTTG	ATTATCGGAG	AAATTCGTGA	CAGCGAGACG	GCQCCTGCAG	TGCTCAGAGC	2340
TAGTTTGACA	GGTGCAGCAG	TCTTTTCAAC	CATTACAGCC	AAGGATATCC	GAGGTGTTTA	2400
TGAGCCTCTG	CTGGAGTTGG	GTGTAGTGA	AGAAGAATTG	GCAGTTGTTT	TGCAAGGAGT	2460
CTGCTACCAG	AGATTAATCG	GGGAGGAGG	AATCGTTGAC	TTTGCAAGCA	GAGATTATCA	2520
AGAACACCAA	GCAGCCAGT	GGAATGAGCA	AATTGACCAG	CTTCTTAAAG	ATGACATAT	2580
CACAAGTCTT	CAGGCTGAGA	CGGAAAAAAT	TAGCTACAGC	TAAACAAAA	AATATCATCA	2640
CCCTATTTAA	CAATCTCTTT	TCTAGCGGTT	TTCATCTGGT	GGAGACTATC	TCTTTTTTAG	2700
ATAGGAGTGC	TTTGTGGAG	AAGCAGTGTG	TGACCCAGAT	GCCTGTGGGC	TTGTCTCAGG	2760
GGAAATCATT	CTCAGAAATG	ATGGAAGTTT	TGGGTGTTTC	AAGTGCTATT	GTCACTCAGT	2820
TATCCCTAGC	TGAAGTTCAT	GGCAATCTCC	ACCTGAGTTT	GGGAAAGATA	GAAGAATATC	2880
TGGCAATCT	GGCTAAGGTC	AAGAAAAAAT	TGATTGAAGT	AGCGACCTAT	CCCTTGATTT	2940
TGCTGGGTTT	TCTTCTCTTA	ATTATGCTGG	GGCTACGGAA	TTACCTGTCT	CCACAACCTG	3000
ATAGTAGCAA	TATTGCCACC	CAAAATTATCG	GTAATCTGCC	CCAAATTTT	CTAGGCATGG	3060
TAGGCTTGT	TTCCGTGCTT	GGCCTTTTAG	CACCTCACTT	TTATAAAGA	AGTTCTAAGA	3120
TGAGTGTCTT	TTCTATCTTA	GCACGCCTTC	CCTTTATTTG	AATCTTTTGT	CAGACCTACT	3180
TGACAGCCTA	TTATGCACGT	GAATGGGGA	ATATGATTTT	ACAGGGAATG	GAGTTGACGC	3240
AGATTTTTC	AATGATGCAG	GAACAAGGTT	CCGAGCTCTT	TAAAGAAGTC	GGTCAAGATC	3300
TGGCTCAJAC	CCTGAAAAAT	GGCCTGAAT	TTTCTCAGAC	GATAGGAACC	TATCTTTTCT	3360
TTAGGAAGCA	ATTGAGTCTC	ATCATAGAGT	ATGGGGAAGT	TAACTCCAM	CTGGTAGTGT	3420
AGTTGGAAAT	CTATGCTGAA	AAACTTTGGG	AAGCCTTTTT	TACCCGAGTC	AACCCACCA	3480

TGAATTTGGT	GCAGCCAC	GTGTTTATCT	TGTGGCACT	GATTATCGTT	TTACTTTATG	3540
CGGCAATGCT	CATGCCCATG	TATCAAAATA	TGGAGGTAAA	TTTTTAAAT	GAATAAAATG	3600
ATGACATCTT	TGAAAAAGC	TAAGGTTAAA	GCTTTTACAT	TGCTGAGAGT	GTGTGTGCTC	3660
TTGCTGATTA	TCAGCTGCT	TTTCTTGCTC	TTTGTACCTA	ATCTGACCAA	GCATAAAGAA	3720
GCAGTCAATG	ACAAAGGAAA	AGCAGCTGTT	GTTAAGGTGG	TGGAAGCCCA	GGCAGAACCT	3780
TATAGCTTAG	AAAAGANTGA	AGATGCTAGC	CTAAGAAAGT	TACAAGCAGA	TGGACGCATC	3840
ACGGAAAGAC	AGGCTAAAGC	TTATAAAGAA	TACAATGATA	AAATGGAGG	AGCAATCGT	3900
AAAGTCAATG	ATTAAGGCTT	TTACCATGCT	GGAAAGTCTC	TTGGTTTGG	GACTTGTGAG	3960
TATCCTTGCC	TTGGGCTGTG	CCGGCTCTGT	CCAGTCCACT	TTTTCAGCGG	TAGAGGAAACA	4020
GATTTCTTTT	ATGGAGTTTG	AAGAACTCTA	TCGGGAAACC	CAAAAACGCA	GTGTAGCCAG	4080
TCAGCAAAAG	ACTAGTCTGA	ACTTAGATGG	GCAGACGCTT	AGCAATGGCA	GTCAAAAGTT	4140
GCCAGTCCCT	AAAGGAATTC	AGGCCCATTC	AGGCCAAAGT	ATTACATTTG	ACCGAGCTGG	4200
GGGCAATTCG	TCCCTGGCTA	AGGTTGAATT	TCAGACCAGT	AAAGGAGCGA	TTCCGTATCA	4260
ATTATATCTA	GGAAATGGAA	AAATTAAGCG	CNTTAAAGAA	ACAAAAAAT	AGGGCAGTGA	4320
TTTACTTGGA	AGCAGTAGTC	GCTCTAGCTA	TCTTTGCCAG	CATTGCGACC	CTCCTTTTGG	4380
GACAAATCTA	AAAAAATAGG	CAAGAGGAAG	CAAAAAATCTT	GCATAAGGAA	GAAGTCTTGA	4440
GGGTAGCTAA	GATGGCCCTG	CAGACGGGGC	AAANTCAGGT	AAGCATCAAC	GGAGTTGAGA	4500
TTCAGGTATT	TTCTAGTGAA	AAAGGATTGG	AGGTCTACCA	TGGTTTCAGAA	CAGTTGTGTG	4560
CAATCAAGA	GCCATAAGGT	CAAGGCTTTT	ACCTTGTTAG	AATCCCTGCT	TGCCCTCAT	4620
GTCTATCAGT	GGGGATTACT	CCTTTTCAA	GCTATGAGTC	AGTCCCTCAT	TTTCAGAAAT	4680
CGCTACCAGC	AACAAAGCGA	GCATAAAGAG	TGGCTCTTGT	TTGTGGACCA	ACTTGAGGTA	4740
GAATTAGAGC	GTTCCAGATT	CGATAAAGTA	GAAGGCAATC	GCCTATACAT	GAAGCAAGAT	4800
GCCAAAGACA	TCGCCATCGG	TAGTCAAAAG	TCAGATGATT	TCCGTAAAC	GAATGCTCGT	4860
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CAACTGGTTC	GCTTTCAATT	CCAGTTCCAA	AAAGGCTTAG	AAAGGGAGTT	CATCTATCGT	4980
GTGAAAAAG	AAAAAAGTTA	AGGCAGGTGT	TCTCCTCTAC	GCAGTCACCA	TAGCAGCCAT	5040
CTTATGCTCT	TGTGTGCAAT	TTTATTTGAA	CCGACAAGTC	GCCCACTATC	AAGACTATGC	5100
TTTGAAATAA	GAATAAATGG	TTGCTTTTGC	TATGGCTAAA	CGAACCAAG	ATAAGGTTGA	5160
GCAAGAAAGT	GGGAAACAGT	TTTTTATCT	AGGTCAAGTA	AGCTATCAAA	ACAAGAAAAC	5220

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TGGCTAGTG	ACGAGGGTTC	GTACGAGTAA	GAGCAATAT	GAGTTCTCTG	TTCCCTCAGT	5280
CAAAATCAAA	GAAAGAGAAA	GAGATAAAAA	GGAAAGAGTA	GCGACCGATT	CAAGCGAAAA	5340
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ACATAATATC	GTGAAATCCA	GAATAGTCCA	CTGTAGTTTC	TAGAAAATTG	CTGSAATGG	5460
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AAGAGTGTGG	AAGATATTGC	ACAAGTTGAT	GTAGTGAATTA	CTACTAATGA	TGATTTGGAT	17700
AGCAGATTTC	CGATTTTAA	GGTAAATCCT	ATCCTTGAAG	CAGAAGATAT	TTTGAAAATG	17760
CTAGACTATC	TTAAACACAA	TATATTTTCGT	AATAAGAGCA	AAAGTTTCAG	TGAAAATCTT	17820
TCTAGTCTTA	TTTGTCTTA	TATGTAGAC	AGCAAGTTGG	CTAGTAAGTT	CCAAGAAGAG	17880
GTTCAAACAC	TTATAAATCA	AGAAATAGTA	GTTCAGCTT	TTTTGGAAG	TATTTGAAGG	17940
ACAGTCCAAT	GATGAACACA	AACCTGTGK	TTTCsTGGTC	TTTTCTAGTG	TTTTGAAGGG	18000
TGGKATCTA	ATCTCAAJGA	TAACAATTAT	ATCCAAAGGA	GGCACATAT	GCCAAACGTC	18060
AAAGAAATTA	CAAGAGAGTC	ATGGATTITA	GCCACTTTC	CAGAATGGG	AACATGGTTG	18120
AACGAAGAAA	TCGAAGAAGA	AGTCGTACCT	GAAGCAACT	TTGCCATGTG	GTGGCTAGGC	18180
AACTGTGGTA	CTTGGATTAA	GACACCAAGCT	GGTGTCAACG	TTGTCTATGA	CCTTGGGTCA	18240
AACCGTGGAA	AATCAACCAA	AAAAGTGAA	GATATGTTTC	GTGGGCACCA	AATGGCAAT	18300
ATGGCAGGTG	TTCTTAAGCT	GCAACCAAC	TTGCTGTTTC	AGCCAATGGT	TATCGATCCA	18360
TTGTCTATCA	ACGAACTAGA	CTATTACTTA	GTTCACACT	TCCACAGTGA	TCATATCGAC	18420
CCATACACAG	CTGCAGCAAT	TCTCAATAAT	CCTAAGTTAG	AGCATGTTAA	GTTCG	18475

(2) INFORMATION FOR SEQ ID NO: 39:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 7186 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 39:

CCAGGATTTG	GTACCGTTGC	AAGTGGTGTG	CCTTTCCTCC	TAAAGGAAAA	TGGAGGAAAA	60
ATCAATCAAT	CAGCACATTC	AGATATCAAA	GTGCTAAGG	TATTGOTCAA	GGATGAAGAT	120
GAAAAAAATC	GCTTGTCTGC	AGCAGGGAAT	GACTTTAACT	TTGTAAACCA	TGTGATGAT	180
ATTTTATCAG	ACCAGGATAT	TACTATCGTA	GTGGAATTGA	TGGGGCGTAT	TGAGCCTGCT	240
AAAACCTTTA	TCACCTGTGC	CTTGGAAAGCT	GGAAACACG	TGTGTACTGC	TAACAAGGAC	300
CTTTTAGCTG	TCCATGGCGC	AGAATTGCTA	GAAATCGCTC	AAGCTAACAA	GATAGCACTT	360
TACTACGAAG	CAGCAGTTTG	TGGTGGGATT	CCAATCTTC	GTACTTTAGC	AAATTCCTTG	420
GCTTCTGATA	AAATTACGCG	CGTGTCTGGA	GTAGTCACCG	GAACTTCCAA	CTTCATGGTG	480
ACCAAGATGG	TGGAAGAAGG	CTGGTCTTAC	GATGATGCTC	TTGCGGAAGC	ACAACTCTTA	540

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GGATTGCGAG	AAAGCGATCC	GACGAATGAC	GTAGATGGGA	TTGATPGAGC	CTACAAGATG	600
GTATTATTGA	GCCAATTTCG	CTTTGGCATG	AAGATTGCCT	TTGATGATGT	AGCCCAACAAG	660
GGAATCCGCA	ATATCAACCC	AGAAGACGTA	GCTGTAGCTC	AAGAGCTTGG	TTACGTAGTG	720
AAATTGGTTG	GTCTATTGA	GGAACCTTCT	TCAGGTATTG	CTGCAGAAGT	GACTCCAAAC	780
TTCTTACCTA	AAGCGCACCC	ACTTGCTAGT	GTGAATGGCG	TAATGAACGC	TGTCTTTGTA	840
GAATCTATCG	GTATTGGTGA	GTCTATGTAC	TACGGACCAG	GTCCGGGTCA	AAAACCAACT	900
GCAACAAGTG	TTGTAGCTGA	TATTGTCCGT	ATCGTTCCTG	GTTTGAATGA	TGGTACTATT	960
GGCAAGACT	TCAACGAATA	TAGCCGTGAC	TTGGTCTTGG	CAATCTCTGA	AGATGTCAAA	1020
GCAACTACT	ATTTCTCAAT	CTTGGCTCTA	GACTCAAAAG	GTCAAGTCTT	GAAGTTGGCT	1080
GAAATCTTCA	ATGCTCAAGA	TATTTCTTTT	AAGCMAATCC	TTCAAGATGG	CAAGAGGGGT	1140
GACAAGCGCG	GTTCGTTTAT	CATCACACAC	AAGATTAAAT	AAGCCCAAGT	TGAAATGTGC	1200
TCAGCTGAAT	TGAAGAAGGT	TTCAAGATTC	GACCTCTTGA	ATACCTTCAA	GGTGCTAGGA	1260
GAATTAAGATG	AAGATTATTG	TACCTGCAAC	CAGTGCCAAT	ATCGGGCCAG	GTTTTGTACTC	1320
GGTGGTGTGA	GCTGTAACCA	AGTATCTTCA	AAATTGAGGTG	TGCGAAGAAC	GAGMTGATGT	1380
GCTGATTGAA	CACCAAGATTG	GCAAAATGAT	TCCACATGAC	GAGCGTAATC	TCTTGCTCAA	1440
AAATCGCTTGG	CAAAATGTAT	CAGACTTGCA	ACCAAGACGC	TTGAAAATGA	CCAGTGATGT	1500
CCCTTTGGCG	CGCGTTTGG	GTTCCTCCAG	CTCGGTATAT	GTTCGCTGGG	TTGAACTAGC	1560
CAACCAACTG	GGTCAACTCA	ACTTATCAGA	CCATGAAAAA	TTGCAAGTAG	CGACCAAGAT	1620
TGAAGGGCAT	CCTGACAAATG	TGGCTCCAGC	CATTATGGT	AATCTCGTTA	TTGCAAGTTC	1680
TGTGAAGGG	CAAGTCTCTG	GTATCGTAGC	AGACTTTCCA	GAGTGTGAT	TTCTAGCTTA	1740
CATTCCAAAC	TAATGAATAC	GTACTCCGGA	CAGCCGTAGT	GTCTTGCTTA	AAAAATTGTC	1800
TTATAAGGAA	GCTGTGCTG	CAAGTCTTAT	CGCCAATGTA	CGGTTGCTG	CCCTGTGGC	1860
AGGAGACATG	GTGACCGCTG	GGCAAGCAAT	CGAGGGAGAC	CTCTTCCATG	AGCGTATATG	1920
TCAGGACTTG	GTAAGAGAAAT	TTGCGATGAT	TAAGCAAGTG	ACCAAGAGAA	ATGGGGCCTA	1980
TGCAACCTAC	CTTCTGTGCTG	CTGGGCGGAC	AGTTATGGTT	GTGGCTTCTC	ATGACAAGAT	2040
GCCAAACAAT	AAGCCAGAAT	TGGAAGAGCA	ACCTTTCAAA	GGAAAACCTG	ATGACTTGAG	2100
AGTTGATACC	CAAGCTCTCC	GTGTAGAAGC	AAAATTAAGA	ATAGAAGATA	GGATGGGGAA	2160
ACTCTTGACC	AGAGGGGTTT	ATATCCTTTT	TGTGAAAAGA	AGTTTATACT	CAATGAAAAAT	2220
CAAGAGCAAA	ACTAGGAAGC	TAGCCCGCAGG	CTGCTCAAAA	CAGTGTTTTG	AGGTTGACAGA	2280
TAGAACTGAC	GAAGTCAGCT	CAAGACACTG	TTTGTAGGTT	GCAGATAGAA	CTGACGAAGT	2340

CAGTAACCAT ACTACGGTAA GGTGACGCTG ACCTGGTTTG AAGAGATTIT CGAAGAGTAT 2400
 TAGTTAAAAA CGTGATAAAG GAGAAATAAA GATGGCAGAA ATTTATCTAG CAGGTGGTTG 2460
 TTTTGGGGC CTAGAGGAAT ATTTTTCACG CATTTCTGGA GTGCTAGAAA CCAGTGTGG 2520
 CTACGCTAAT GGTCAAOTCG AATCGACCAA TTACCAATTG CTCAGGAAA CAGACCATGC 2580
 AGAAGCGGT CAAGTGATTT ACGATGAGAA GGAAGTGCA CTCAGAGAGA TTTTACTTTA 2640
 TTATTTCCGA GTTATCGATC CTCTATCTAT CAATCAACAA GGGAAATGACC GTGTCGCCA 2700
 ATATCGAACT GGGATTTATTT ATCAGGATGA AGCAGATTTG CCAGCTATCT ACACAGTGGT 2760
 GCAGGAGCAG GAACGCATGC TGGGTGAGAA GATTGCAGTA GAATGGAGC AATTACGCCA 2820
 CTACATCTCG GCTGAAGACT ACCACCAAGA CTATCTCAGG AAGAATCCTT CAGGTACTTG 2880
 TCATATCGAT GTGACCGATG CTGATAAGCC ATTGATTGAT GCAGCAAACT ATGAAAAGCC 2940
 TAGTCAAGAG GTGTTGAAGG CCACTCTATC TGAAGAGTCT TATCGTGTC AACAAGAAGC 3000
 TGCCTCAGAG GCTCCATTTA CCAATGCCTA TGACCAAAAC TTTGAAGAGG GGAATTTATGT 3060
 AGATATTACG ACAGGTGAGC CACTCTTTTT TGCCAAGGAT AAGTTTGCTT CAGTTGTGG 3120
 TTGGCCAAGT TTTAGCCGTC CGATTTCCAA AGAGTTGATP CATTATTACA AGGATCTGAG 3180
 CCATGGAATG GAGCGAATTG AAGTTGCTTC TCGTTCAGGC AGTGCTCACT TGGGTCACT 3240
 TTTACAGAT GGACCGCGGG AGTTAGGCGG CCTCCGTTAC TGTATCAATP TCGTCTCTT 3300
 ACGCTTTGTG GCCAAGGATG AGATGGAAA AGCAGGATAT GGCTATCTAT TGCCTTACTT 3360
 AAACAAATAA AACAGAGAGT GGGGCTTCCC ACTTTCTTCA TTTCTAGAAAT ATGAATAGAA 3420
 GGGATTTATG AAACACCTAT TATCTTACTT CAAACCTTAC ATCAAGGAAT CAATTTTATG 3480
 CCCCTTGTTT AAGCTGTTAG AAGCTGTTTT TGAGCTCTTG GTTCCCATGG TGAATGCTGG 3540
 GATTGTTGAC CAACTTTTAC CTCAGGAGAA TCAAGGTCAAT CTCTGGATGC AGATTGGCCT 3600
 GCTCCTTATC TTGTCAGTAA TTGGCGTTTT AGTGGCCTTG ATAGCTCAAT TTTACTCAGC 3660
 AAGGACAGCA GTAGGTTCTG CTAAGGAATT GACAAACGAT CTTTATCGTC ATATTCTTTC 3720
 CTGCCCCAAG GACAGCAGAG ACCGTCTGAC AACTTCTAGT TTGGTCACTC GCTTGACTTC 3780
 GGAATACCTAC CAGATTCAGA CTGGTATCAA TCAATTCTTG CGTCTCTTTT TACGAGCGCC 3840
 CATTAATCGTT TTTGGTGCCA TTTTATGGC TTATCGAATC TCAGCTGAGT TGACTTTCTG 3900
 GTTCTTAGTC TTGCTTGCCA TTTTGACCAT TGTCAITGTA GGGTTATCTC GAATGGTCAA 3960
 TCTCTTCTAC AGTAGTCTCA GAAAGAAAAC GGACCAACTG GTTCAGGAAA CGGCCAGCA 4020
 ATTGCAAGGG ATGCGGGTTA TTGTTGCTTT TGGTCAAGAA AAACGAGAGT TACAGATTTT 4080

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TCAAACCTT AACCAAGTTT ATGCTAGATT ACAAGAAAG ACAGGTTTCT GGTCTAGTTT	4140
ATTAAACACT CTGACCTATC TGATGTCAA TGGAACTCTT TCGTTATTA TCTGGCAAGG	4200
CTATATTTC AATCAAGAG GAGTGCTCAG TCAAGTGCT CTCATTGCTC TTATCAATT	4260
CCCTCTACAG ATTCTGCTGG AATTGGTCAA GCTAGCCATG TTGATCAATT CCCTCAACCA	4320
GTCTATATC TCAGTCAAGC GAATCGAGGA AGTCTTTGTT GAGGCTCCAG AGGATATCCA	4380
TTCAGAGTTA GAACAAAAGC AAGCTACCAG AGATTAGGTT TTACAAGTCC AAGAATTGAC	4440
CTTTACCTAT CCTGATGCGG CCCAGCCTTC TCTGAGATAC ATTCCTTTTG ATATGACTCA	4500
AGGACAAATT CTAGGTATCA TCGGGGGAAC TGGTTCTGGT AAATCAAGCT TGGTGCAACT	4560
CTTACTTTGA CTTTATCCAG TAGACAAGGG GAACATTGAC CTTTATCAAA ATGGACGTAG	4620
TCCTCTTAAT TTGGAGCAGT GCGGTCTTG GATTGCTTAT GTACCTCAA AGGTGCAACT	4680
CTTTAAAGGA ACCATTGCTT CCAACTTGAC TCTAGGTTTC AATCAAGAG TATCTGACCA	4740
GGAACTCTGG CAGGCTCTGG AGATTGCGCA AGCTAAGATT TTTGTCACTG AAAAGGAAGG	4800
ACTCTTGGAT GCTCTAGTTG AGGCAGGGGG GCGAAATTTT TCAGGTGGAC AAAACAAAG	4860
ATTGTCTATC GCCCGAGCAG TCTTGCGCCA GGCCTCGTTT CTCATCCTAG ATGATGCAAC	4920
CTCGGCAGTG GATACCAATTA CAGAGTCCAA GCTCTTGAAA GCTATTAGAG AAAATTTTCC	4980
AAACACGAGC TTAATTTTGA TCTCTCAACG AACCTCACT TTACAGATGG CGGACCAGAT	5040
TCTCCTCTTG GAAAAAGGTG AGTTGCTAGC TGTTGCCAAG CACGATGACT TGATGAAATC	5100
CAGCCAAGTC TATTGTGAAA TCAATGCAATC CCAACATGGA AAGGAGGACT AGAATGAAATC	5160
GACAAACTGT AAACCAGACG CTCAAAAGTT TAGCCGTAGA TTTAGCAAGC CATCCTTTCC	5220
TCCTTTTCTT AGCCTTTCTA GGAACATTTG CCCAAGTTGG CTTATCAATT TACCTACCTA	5280
TTCTGATTGG GCAGGTCAAT GACCAAGTCC TAGTGGCTGG TTCATCACCA GTTTTTTGGC	5340
AGATTTTTCT CCAGATGCTC TTGGTGGTAA TAGGAAATAC TCTGGTACAA TGGGCCAATC	5400
CTCTCCTCTA TAATCCTCTA ATCTTCTCTT ATACCAGAGA TTACCGGAG CGAATCATCC	5460
ATAAGCTCCA TCGTTTACCG ATTGCTCTTG TAGATAGGCA AGGTAGTGGG GAGATGTTTA	5520
GTGCTGTAA CAGCGACATC GAACAGTTGG CAGCTGGCTT GACCATGATT TTTAACCAAT	5580
TTTTCAATTG TGTTTTGATG ATTTTGTGTA GTATCTTAGC CATGCTCCAA ATTCACTCTC	5640
TCATGACTCT CTTAGTCTTG CTGTTGACGC CACTGTCCAT GGTGATTTCG CGCTTTATTG	5700
CCAAGAAATC CTATCATCTC TTCCAGAAGC AAACAGAGAC GAGGGGAATT CAGACTCAGT	5760
TGATTGAAGA ATCGCTTAGT CAGCAGACTA TAATCCAGTC CTTCAATGCT CAAACGAAT	5820
TTATCCAAAG ATTGCGTGAG GCTCATGACA ACTACTCAGG CTATTCTCAG TCAGCCATCT	5880

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TTTATTCTTC AACGGTCAAT CCTTCGACTC GCTTTGTGAAA TGCACCTATT TATGCCCTTT 5940
 TAGCTGGAGT AGGAGCTTAT COTATCATGA TGGGTTACAG CTTCGACGTC GGTGCTTTAG 6000
 TGACTTTTTT GAACATGTGT CAGCAATACA CCAAGCCCTT TAACGATATT TCTTCAGTGC 6060
 TAGCTGAGTT GCAAGTCTCT CTGGCTTCGC TAGAGCGTAT CTATGGAGTC TTAGATAGCC 6120
 CTGAAGTGGC TGAACACAGT AAGGAAGTCT TGACGACCAG TGACCAAGTT AAGGGAGCTA 6180
 TTTCTTTTAA ACATGTCTCT TTTGGCTIAC ATCCTGAAAA AATTTTGATT AAGGACTTGT 6240
 CTATCGATAT TCCAGTGGT AGTAAGGTAG CCATCGTTGG TCCGACAGGT GCTGAAAAAT 6300
 CAACTCTTAT CAATCTCTTT ATGCGTTTTT ATCCCATTAG CTCGGGAGAT ATCTTGCTGG 6360
 ATGGGCAATC CATTATGAT TATACACGAG TATCATTGAG ACAGCAGTTT GGTATGGTGC 6420
 TTCAGAAAC CTGGCTCACA CAAGGGACCA TTCATGATAA TATTGCTTTF GGCAATCTG 6480
 AAGCCAGTGC AGACCAAGTA ATTGCTGCTG CCAAGCAGC TAATGCAGAC TTTTTCATCC 6540
 AACAGTTGCC ACAGGGATAC GATACCAAGT TGGAAAATGC TGGAGAATCT CTCTCTGTCG 6600
 GCCAAGCTCA GCTCTTGACC ATAGCCGAG TCTTCTGCG TATTCCAAAG ATTCTTATCT 6660
 TAGACGAGGC AACTTCTTCC ATTGATACAC GGACAGAAAT GCTGGTACAG GATGCGCTTG 6720
 CAAAACCTCAT AAGGGCCGC ACAAGTTTCA TCATTGCTCA CGTTTGTCA ACCATTGAG 6780
 ATGCGGATTT AATTCTTGTC TTAGTAGATG GTGATATTGT TGAATATGTT AACCATCAAG 6840
 AACTCATGGA TAGAAAGGT AAGTATTACC AAATGCAAAA AGCTGGCGCT TTTAGTTCTG 6900
 AATAAGCCAT TCTCTTTTGA AAGTTTATGG ACGAAAAAAG TTGCTTTCGA GTGACTTTTT 6960
 TGTTACAATA GCTAGAAAAA TTGTTCACTG TAATACTCAA TGAAATCAA AGAGCAAACT 7020
 AGGAAGCTAG CCGTAGCTTG CTCAAAGCAC AGCTTTGAGG TTGTAGATAA GACTGACGAA 7080
 GTCAGTTCAA AACACTGTTT TGAGGTTGCA GATAGAACTG ACGAAGCTAG CTCAAAAACAC 7140
 TGTTTTGAGG TGCAGATAG AACTGACGAA GTCAGCTCAA AACAGG 7186

(2) INFORMATION FOR SEQ ID NO: 40:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14273 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 40:

CTGAAAAATC TAAAAAATTT ATAAGTAAG AATTAATTAG TTATTTTGT GATAAAGTTT 60

390			
ATGATGAAAT	ATTTGTGAA	GAGGTAGTTC	CGCACGTTTT
TACTTCTTAT	TTTACCAGCT	ACGGCAAATG	TGATTGGCAA
ATGATTTAGT	TACAGCAACT	GTTTTAACT	TTAATAAAAA
TGAACCTAC	TATGTGGAG	AATCACATAG	TTCAAAGAAA
TGGGACATAT	ATTTTATATT	GAGTCTAAAA	AAACATATGA
TAGATTCAAC	ATGTTCAATG	TTACAAACCAC	AGTCGTAGT
AAAATATTGT	CCTTGAAGAG	GGACATTAAA	AACTACTGAG
ATGGAAAATT	CATCAATCGA	TGTAGATATG	CTGTTGGAAG
GTCGTTGTG	CTGTTGATAA	GGACTGTTAA	TTTAAACTTA
CTGGATGTTT	TAAATTATGC	AGGCAGTAGC	CTTTTATTAT
GATAATACAA	TGATTAAATA	AAAAATACAA	CAAGTTGTTT
TTGAATGGGA	ACTTCATTTC	GCCTTGCTGA	GTCTATGATT
CTTGATGAAT	TTAAAAATCA	AATTCCCTGA	ACATTCAAAT
AAAGCAAATT	CAAAATGAGAA	GATACTTGAA	TTCTTAGTAG
GTGGCGTCAT	TATCTGAATT	AGATGTGGCT	AAAAAATTTT
GTTAATGTGC	CCGCATTTTC	TTATGAAACT	TTATATAATC
GTGATATTA	ACTTTTTTGA	ACATCTTCAA	CAATTTTCCC
AGAGTAACGG	AGCCAGATGA	ACTTAATAAT	CGTATGAGTC
AGTGATAATT	GGACTAGTAA	TTTACAAAAT	CCTTTAATTA
GGAGAAAAG	ATGATAAATT	TATTGTTAAG	TTAGATAAAA
ATTAATAAAC	TTAGAGAGGT	TAGAGAAAATA	AATCTTGAG
ATGGAAAATC	GTTTGAAGA	ATTTTTTCTA	TCACTTATGG
ATTGATAGTA	CTGTGACTAC	AATAATAGAA	CCAGGTAGTG
TATATGATTA	CTAGCCCAAT	TAATGTAGT	GAGGTGAATG
GACACATCAA	TATACACCAA	TACATTATGG	TTTGTCCCGC
TCAAGTAGTA	AAGAGCGTTA	TAGTACTATT	CTCTATGGTA
AAGTATAAAA	TGAAAGTTTC	GCTTCCAAGG	TTAACTCAAA
CCTGAGGAG	CTTATATAAA	AAGCAATCAT	TCAAATTTAC
GAGGTATATT	TGTGGACAAA	AAACTTGGACA	TATTAGATAA
ATAAACTAC	TCAAATCTCG	GATAATCAAT	ATAAGAAATT

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960

1020

1080

1140

1200

1260

1320

1380

1440

1500

1560

1620

1680

1740

1800

1860

GCGAGCGT TGGTATTCA GAAAAAGTAT TAAACAAATC TTTTAATTTT ACGAGTAAAG 1920
 AATTTAATGA TTTAATTAA T AACGAAATTT ATTTAATTGA ATATGCATGT AGAATTAGAG 1980
 AGGAATGGAG AAAAAAATGC TTTAATCAT TTTATCGTTT TCTATGCTCA CCTATAATTA 2040
 CAGATGATTT TCTTAACAGC AAGCATTGA GAAGTAGCCA AATTGAATAT AATATGAGC 2100
 GATATTATTC GAAAAGTTGC ATAGGCGATA GAGCGGTTGA TGGCTTTGTT TCCTTCAATA 2160
 CTTTAACAGC TAATGGTATG TCTGCTATTA AACTATGTCT TGAGATATTA AACTCTATTT 2220
 TCTTCAAGAA GAAGATTGAT TTATTATATT CAACCGGATA TTATGAACAA AGATTTTTAT 2280
 TAAATAATCT TGCTAAATCA GGTATTAGTT GCTATGAGGT AAGTAATGT GAATTGGATA 2340
 AAGATAAATT TTATAATGTA TTCATGATGG AACCCAATCG AGCGGATTTA ACATTACAAA 2400
 AAACGTGATT CAAGATAGTA GAATATTTTG TTAAGTATAA AATAAATCA ATAAAAGTCG 2460
 TTTATTTAGA TATTTCAAT CAAGGTTCTA ATTTTAAATT AGTAGAATTT TTAGAGAAAT 2520
 TTAATTTTGC GAATGTAAAT ATTTTGTGG TACGATCTTT GATAAAATTA GATCAAAATG 2580
 GATTAGAATT GACAAATCGG GGAATAATAG AAGTGTTTAT TCCTAATCAT TTGAGAAAGT 2640
 TGAATAATTT TATTTGAAGG GAATTCATAA AMTTAGAAA TTCTCACGGA GCTAATCTAA 2700
 GCCTCTATGA ATACTGTTTG CTGATAATT CTTTAACTTT AAAAAATGAT TCGAACATTT 2760
 CTGATTTAGT TATGAAATTT ACGAGTAATT TTTATGCTGA TATAAAAGAC TTGTTCATGG 2820
 AAAATTTCTGA TATTGAAATC ATCCATGAAG AGGAGTACC TTTTGTATTT TTAGATTTAA 2880
 TAGGTGAAG TAAAAAGAA TATGAAATGT TTTTCAATG GTTAAACTTC TTTTCAAAAC 2940
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 ATTTTGAAT TATTTGGACA GAAAGATATA TATTTAAGAT TTGTCCAGT GTTTATAAAG 3060
 GGTAAATTTA TTATTTGATG AATTTTATTT TAAAACTTT TTCAAAATGAA TATTTAAAAA 3120
 CTACTGATGA GGTAAATAGA TGAATAATTT GATAAGTTG CTAATAATTA GATTGATTGT 3180
 TAACCTAGCA GACAGTGAT TTTATATAGT AGCATTTGGG CACGTAGCA ATAAATATTC 3240
 TTCGAGCATG TTCTTAGGAA TATTTATTGC AGTAAATTA CTACGGATT TGTACTAAT 3300
 CTTTTTGGGA CCAATTATTG ACAGAGTAAA TCCGCAAAAA ATTCTTATTA TATCAATTTT 3360
 GGTTCAAATTA GCAGTGGCTG TAATATTTTT ATTATATTA AACCAATAT CATTTTGGGT 3420
 GATTAATGAT CTAGTGTTTA TTTCAATAT GGTAGCTCC ATAACTTACG TGATAGAAGA 3480
 TGTGTTGATT CCTCAAGTG TAGAATATGA TAAGATTGTA TTTCGAAAT CTCTTTTATG 3540
 TATTTCTAT AAGTATTAG ATCTATTTT TAATTCATTC GCATCATTTT TACAGTGGC 3600

AGTAGGATT	ATTTTATTGG	TTAAGATAGA	TATAGCATA	TTTTACTTG	CTCTATTAT	3660
ATTGTTGTTG	TTAAATTTA	GAAGTAGCA	TCCGATATA	GAAACTTCT	CTTCAATA	3720
TTACAGAGA	GAAGTGTGC	AAGGTACAA	GTTTATTTA	AAATAAAAT	TATTAATTAA	3780
AACAGTATT	TCTTTAACG	TTATAAACT	TTTTTATTC	TTTCAGACAG	TAGTGTACC	3840
GATTTTTCT	ATTCGATAT	TTGATGGTCC	GATTTTTAT	GGTATTTTT	TAACATATG	3900
TGGTTTGGGT	GGTATATTG	GAATATGCT	AGCGCAATC	GTATAAAAT	ATTTAAATC	3960
GAATCAAAAT	GTGGGTGAT	TTCTTTTTTT	GAACGGCTCA	AGTTGGTTAG	TAGCAATTGT	4020
TATAAAGAC	TATACTTTAT	CACTTATTTT	ATTTTCGTT	TGTTTTATGT	CTAAAGGAGT	4080
CTTCAATATT	ATTTTAAAT	CGTTGTACCA	ACAAATACCT	CCACATCAAC	TTCTGTGTAG	4140
GGTAAATACT	ACCATGTATT	CTATTATTTC	TTTTGGAATG	CCAAATTGTA	GTTTAGTTGC	4200
AGGAAGCCTT	ATTGATTTGA	ATATTGAAT	AGTGTAAAT	GCTATTAGCA	TACCTTATTT	4260
TTTGTTTTCT	TATATTTTTT	ATACGGATAA	TGGATTGAAA	GAATTTAGTA	TATATTAGAA	4320
ATGTTTATGT	TCATTCAAAA	GCATAATGAC	TATAACTGAA	AAAGAAAAGT	GATATCTTTA	4380
AGGTGTGTTCT	TCTTGGTGGT	GAGATTCGTG	AGACAACCCA	AGCTTTTGTC	GGAAGATTA	4440
CCAATGCTTT	GATGGATAGG	ATGTACTTTA	GCAAGATGTT	TTTAGTGTA	ACGGTATCGT	4500
GGATGGACGT	GTAAATACCT	CTTCTTTCSA	GGATTTATTT	ACTAAAAAAC	TAGCCTTGGA	4560
GCGTCCCCA	GAAACGGACT	TACTCATTTGA	CTCTTCAAAG	ATTTGGGGAG	AAGATTTTGC	4620
TTTATCTGTT	CCTGAAAAA	AGTCACAGCA	GTATCACAG	ACGATAGTAC	TGAACAAAAC	4680
TATGAAGAGT	TAGAAATTTA	TACGCAGGTG	ATTGTATAAA	GGATCTOGAA	ATAGATAAGA	4740
AGTTGATTAG	TATTGACCTA	GGTGGTACAA	ATATTAAAGT	TACTGTTCTT	TCAAATGAAG	4800
GTGAGATTGA	AACTTTGTGG	AGTATTACAA	CAGATACAG	TGAGAAAGGT	TCTCAAATTA	4860
TATCGGACAT	CATCAGTTCT	ATTAATAATA	AATTGACCGA	ACGGATATAT	CCTGATAGCG	4920
ACCTTCTTGG	AATCGGTATG	GGAAATGTCT	CATCATACTT	TCCTTGTAAA	TCATAGGGGC	4980
TATAAACTCT	CCGCTACTTT	GTCTGCAAC	AATTGAAGTC	TGCTCAAAAC	GCGTCCGCT	5040
AATCTTTTCA	TAGACTTTCT	CCCTTTTAGG	AGCCTAGCTT	TCTAGTTTGT	TCTTTGATTT	5100
TTATTTAGTA	TACCCTATT	TTACTCCCTC	TGGCAAGGGA	CTTTGTCTAT	GTGAGGGGAT	5160
TGGGCTCCTA	TGTGTGGGAG	CTTTTCTGTT	CTTTCTGAAA	TATGGTATAA	TAGCACTAAT	5220
CAATTTCTAG	GAATAAGAT	ACAGAAAGGG	GCTGAAAGAT	GTCTCATATT	ATGAANTTGC	5280
CAGAGATGCT	GGCAAAACCA	ATCGCGGCTG	GAGAGGTCAAT	TGAACCTCCT	GCCAGTGTGG	5340
TCAAGAGGTT	GGTAGAAAA	GCCATTGACG	CGGGCTCTAG	TCAGATTATC	ATTGAGATTG	5400

AGGAAGCTGG TCTCAAGAAG GTTCAAATCA CGATAACGG TCATGGAATT GCCCACGATG 5460
 AGGTGGAGTT GGCCCTGGGT GCCCATGCGA CCAATAAGAT AAAAAATCAA GCAGATCTCT 5520
 TTGGGATTGG GACGCTTGGT TTTCGTGGTG AAGCCTTGCC TTCTATTGCG TCTGTTAAGT 5580
 TCTTGACTCT GTTAAACGGG GTGGATGGTG CTAGTCATGG AACCAAGTTA GTCCCGCGTG 5640
 GGGGTGAAGT TGAGGAAGTC ATCCACAGCGA CTAGTCCTGT GGGGAACCAAG GTTTGTGTGG 5700
 AGGATCTCTT TTTCACACG CCTGCCCGTC TCAAGTATAT GAAGAGCCAG CAAGCGGAGT 5760
 TGTCTCATAT CATTGATATT GTCAACCGTC TGGGCTTGGC CCATCCTGAG ATTTCTTTTA 5820
 GCTTGATTAG TGATGGCAAG GAAATGACCG GACAGCAGG GACTGGTCAA TTGCGCCAAG 5880
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CAGGTGTTCA AAAACCTTGA TTTTAATGCGT TTTATCATGG AAATAGTTAC TTCATTTTTT	7320
CCTAATTCCT TTGGAACCTC TTTTAAACG ACCTCAGTTT TATCAGTAAT CTCAAAAACG	7380
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CGACTGGTTT CCTAGTTTGC TCTATGATT TCAACAGACA TTAATTTGCG ATTTTGCCTAA	7500
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TCATCAACAA TTTGTGTTTC CAAAGCACTC CAATTCATTA GACTGCCCCC TTCTAGAAT	10080
AGGCTATCAA TCTGCATGTT TCCTAGATGT TGCATTAAAC TCGATAAGTC TATATGATTG	10140
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TTGCTTTCAG AGGAAGTGGC AATGTAAGTT TTAATATCAT TTGCTGTTTT TACGATTTTA	10260
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GCACATAACAT GGATGCTGTA CTGATGCACA TGCTTTCTTG CTCTCTCTTC AGTAATCCAT	10440
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ACATAGGGTA CATGCTGGGT AATATACTTT CTAAAACTTT TTATTAAAGT AAGCACTCA	10560
TTTTCTAAAA TTCCAACAGT AACTTGAAGA TTATTTTCTT CAAGTATCTT TACTCCTTTT	10620
CCAGATACAA TAGGATTACA GTCTAGGCTT CCAATGACTA CTCTGTGTAAT ACCCATATCG	10680

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GAATTTGTAT	CAGAGATGTT	GAAGCAGTTT	GTGGACTAG	ATGGACAAGG	TCTAAATCAG	12840
TCTAATATTC	AAAGTACCTT	TCAAGAACAA	CCACTACTGA	TAGCTGTTTT	TGCTTGTGTC	12900
ATTGGACCTC	TGGTAGAAGA	ATTATTTTTC	CGTCAGTCT	TATTCATTA	CTPGCAGGAA	12960
CGGTTGTCAG	GTTTACTAAG	CATTATCTCG	GTAGGACTTG	TTTTTGCTCT	GACTCATATG	13020
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TACTGTAAAT	TGTGATGAAA	ATGCCAGTAA	TGATACCGAG	AAAAAGAGCTG	AGAAACTTTT	13320
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GGACCCCAAA	GGGTACAATT	GCTCTTGGAG	TTGCGTGGCC	GACATTGAGA	TTATAGACAA	13440
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GGCTATAGCG	TAGCATTTCT	TTGTCTAAAT	CACAAATGTC	TGCTAAAAAG	GATTGACCAT	13980
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CAAGAAAAAT	TTTTTGCTGT	ATAACCTTTT	GGAGTTGGTC	ATTTTCAAAA	AGATAAGGTA	14100
GCAAGCGATA	GGTATCGTCT	CCACCGATGG	CACATAGGAT	CATGTGAGTG	CTATCATCAG	14160
AAAAAGCATG	AATCAAAATC	TCTGCACGAG	CTTCAGGATG	GTCTTGATA	AAGTCTAATC	14220

398

CTTTTAACGA ATGGGGCAAA AAGATGGGAT TGGTCCCAGA TCCCTTGAGAC GTT 14273

(2) INFORMATION FOR SEQ ID NO: 41:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9828 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 41:

GTGAAGTCGC GCAAAAGGTG CAAGTGATGA GCTCAGGTTT TTTAGCTCTT GACATTGCC	60
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GTAAGACAAC GGTTCGCCCT CATGCAGTTG CACAAGCGCA AAAGAAGGT GGGATTGCTG	180
CCTTTATCGA TGGCGAAMCT GCCCTTGATC CAGCTTATGC TGCGGCCCTT GGTGTCAATA	240
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AATTGATTGA CTCAGGTGCA GTTGATCTTG TCGTAGTCGA CTCAGTTGCT GCCCTTGTC	360
CTCGTCCGGA AATTGATGGA GATATCGGAG ATAGCCATGT TGGTTTGAG GCTCGTATGA	420
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GCGGACGTGC TTTGAAATTC TATGCTTCAG TCCGCTTGA TGTTCGTGGT AATACACAAA	600
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TAAAAAATAA GGTAGTCCCA CGGTTAAGG AAGCCGTAGT TGAAATTATG TACGGAGAAG	720
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TCGAATTTGA AGAATAAGCT GTTAAAGCAG TGGAGAAATC CGTACTTTT TCGATTTT	1080
ATTCAAGTTT TTAGATTATA TATAGTAGCT TGAATAAGA TATGAACAC TCTATTAGGA	1140
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 GCTCTATAAC ACTGCTGATG TCTTGATGTG TGGACGATTT CTGGGTCAAG AATCCTTGGC 1500
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400

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GCTATGATAC AAGTTTATAT COTCCTTTGT CAGAAAGTAA AAAAGAAATG GCATTAGGAT	5160
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AGGAACTGTT ACTAGATGCT TTCAGATATG ATATTGTATA TGGGCTAGAT GAAGAGGGGG	5280
GAGTTGTGCT TTGACTAGTC GTGTATTTAT TGATGCAGAT TGTATTTCAG TATTTTTATG	5340
GTTTGGCACT GAACATCTTT TAGAAAAGCT CTATTGGGT AAAATTGTTA TTCCACAAGA	5400
GGTGTATGAT GAAATCAATA TACCTACAAT TCCCACTTA AAATCTAGGA TAGATCAGTT	5460
GGTAGCTAAG GGTTCAGCTG AGATTGTGAG CATAGACATT GGAAGTGAAG AATACGCAAT	5520
ATATAGAGAT TTAACAAGAA ATCATGATAG TAAACAAGATT ATTGGTAAGG GAGAAGGGGC	5580
ATCTATTTCCT TAGCGAAAA AGCATAATGG GATATTAGGA AGTAATAACC TAAGAGATGT	5640
TAATCATAT GTAGAGAAAT TTCTTTTAGA ATATATGACA ACAGGAGATA TACTGATTGA	5700
AGCGTTTAAA GCGTAATTTA TTAAGTAATA AGAGGGCAAT CATATCTGGA ATAATATGCT	5760
TAAAAGGAGA AGGAAATTC GTGCAATTC ATTTTCAGAC TATCTTCGTG GAAGTATTCA	5820
TCAAAATAGA CAAAAATAA TTGGGATAAA TCGAACTCAC TATTCCAGGAG GCATATGAGC	5880
AATTGAAAA AGAAAAGTGT CAAATTGAGC CTATAGGAGT AGAAGTGAAG TAGTAAGTCC	5940
TGCATAGTGG ATGAGAGAAA AGTTCTCCTT GAAGTTTTCC TGAACATACA GTCGCATGTC	6000
AAACGATATG TAGGGTAATG TGAGAGGGGA TAGCGAGTAG TTTTGTGTTA TTTTATCAAA	6060
AACTTATAT TTTATTTATC CGAATGATAA AATATATATA AAATGATAGA ATAGGAAAA	6120
AACATGAATG TCAAAAAGAT AATGTCAATT TTCAATCCT TTTATGTGTA TGTCAGTATT	6180
GAGGAAGTGA CTTTGACTTT ACCAATCAGT TTTGTAAAA GGTTTGAGTA TACTCAATG	6240
ACTTTTCAATA AGGAATCATT TTATTTGATT AAAGAAAAA GAAGGGGGAG TTTGAGTTCA	6300
TTTGTACTC AGGCTCGCAC TATGGGTGAA AAAGCCAATA TGGATGTGT TTTGTGTTT	6360
TCGAAGTTAT CAGACAGTGA AAAAAAGCAA TTACTTCAAG CTAGAGTTCC GTTTGTAGAC	6420
TTTAAAGGAA ACCTCTCTT CCCTCCATTG GGACTAGTAC TCAATGCGAA TGATACTGAA	6480
GTCCCTAAGG AATTACACAC TAGOGAACAA TTAACGTGGA TTGCCTTTTT ATTGACAAAA	6540
GGTCAAAAAG TAGTAGATGT TGATTGCTT TCACAAGTCA CTGGACTTCC AAATCAACA	6600
ATTATATAGT GTTTGAGGAC TTTTAAAGCT TTATATTGGT TAAACAAGCA AAATAAGCTT	6660

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TACACATATA CGGTGTCAAA GAAAGAATTA TTCTTAAAT CCGTGTGATG TTTATTTAAT	6720
CCCATCAAAA AACGGATTTT ATTGCCAGAT GGGGATATAA AGCAGATAAA ATCTGTTTCT	6780
AACCTTCTAT ATGGTGGTGC TTATGCTTTG TCGCATTCAA CTTTTTTAGC TGAACGGGAT	6840
GAAJATATTA GCTATGTCAAT ATGGCAGAGA AAATTCAMTC AGTTATCCTT GCCACTTTCT	6900
CAGCATGTTT TAAATGAAA GATGCTAGAG ATATGGAAT ATCGTCCTTT TGTATCTGAG	6960
TTTTGGAAAT ATTTTAAAA TAATCATGAT AAACAATTG TAGATCCGAT TTCTCTTTAT	7020
TTGACCTTAA AAGATGATGA TGACCCAGCT ATAGAGGAAG AGAGTGAAGC ACTAGAAJAT	7080
ATGATATTAC AGTATCTGGG AGAAGATGAT GCCAGCTAAT ACGAAAGTTA TTTTCAAGA	7140
AATGTTTGGC GATTTTCAGA ACTATATAT TCTGATTOGG GGAAGTCTA CTTCTATCGT	7200
ATTGATTTCC CAAGGATTTA AAAGTCGCAC AACAAAAGAT TATGATATGG TCATCATTTA	7260
TGAAGTAAAA AATAAGGAAT TTTATACTAC CTTGAATCAT TTTTGAATAT TGGGAGAGTA	7320
TCAGCGAAGT CAGAAAGATG AGAAAGCCCA GCTTTTTCGA TTTACAACAA CTAATCTGTA	7380
GTTTCCTTCT ATGATTGAAC TATTTAGTAT CTTACCAGAA TATTCATTAA AGAAGGACGG	7440
TCGAGAAATT CCCTTACATT TTGACCAAGA TGCTAGTTTA TCAGCCTTAT TATTGGATGA	7500
AGATTATTAT AATATATTGG TGCATGAAAA AGAAACCATT CAGGGGTATT CGGTATTGAG	7560
TAATTGTGTT TTATACTCTT CGAAAATCTC TTCAAACCAT CAGCCTTCC ATCTACAACC	7620
TCAAAACAGT GTTTTGAGCA GCTGCGAGCT AGCTTCCTAG TTGCTCTTT GATTTTCATT	7680
GAGTATTAAT TATTTTAAAG GCTAAAGCTT GCGTGGATAT GAGGGAGCGC TCTGCCACAG	7740
GTGCTCAAGG TTTAAGTAAG TCCATTAAAA AGCATTTGAA TGACCTTACC COTTTGACAG	7800
CTTCTCTTCT AGGAGATGAA AAGTTATCGG CTATAACATC AAGTAGTGCG GTAAAAGCAG	7860
ACATGCCCGC CTTTGTGATA GAATTAGAGC CTGTGAAGTC AACTATTCTT CAJAJATAATG	7920
ACATTTCTAT GGATCAAAAT GAJAJTTTTG AAATTTCTGA AAATTTTCTC GATGTTTAAA	7980
ATAATTGTAG CGAGATGGCT ATATTGAAT CGTCTATATC TGGAAACTAG AAAAAACTC	8040
AATTTCAAGA GAJAJATGAAG TCAATCTTCC CACAATCAAA CGTATAGTAT CAAGTTTTTT	8100
CAAGACCTGA TATTATCGCT TTTTGTCTTT TCAAAACTTT TTGCCAGTC TTGCTTTTTA	8160
TCCTCTAGTC ACTTGATTG TTTCAAGTGG TTTTGTAGTA TAGTAGAAT AAACGAGAAC	8220
AGGACAJAAT GATCAGGACA GTCAAAATCGA TTTCTAACAA TGTTTTAGAA GCAGAAGTGT	8280
ACTATTTCTAG TTTCAATCTA CTATAGTTAA ATCTGCGGCT AAGTCTACTG GTGAATCTAT	8340
GATGTAATA CTCTTCCAAA ATCTCATCAA CCACGTCAGT CTGCGCTTGC AGTCTGTATC	8400
TTACTGACCA AGCTAGTGAT GGAATTAGAA TAGCTGATTT GGAGCGTCCCT ATTAGCTAGG	8460

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AAATGCTGCT CATAGTCCTT TGCTGAGGCT AGGGTGTTC AACATTCAAC ACTCAACTGG      8520
TTGATCTAGT TGATAGGAAG GGAGTTACTA TAAATACTC AGGCTTCCAT CATATTTTTT      8580
GAAACGATTG TGTAAACAAA ATGTACCAAT ATTGTAGTAT TGGTACAGAA GATGTTCTGA      8640
ATGGATAAAT ATATCATAAC TGCTATCTCA AAAAGATTTC ATATGCTGTG GCATATATAA      8700
TAGACTTCCT GCAAACTAG AATCCTAGTT CATGATTGAT AATACCAGCA ATCAAAATTA      8760
TTCTGTAATCC AAAGCGTTTA CGATGATTTC GATAGGTTGT TGAATAAATT TTAACGTTT      8820
CTACTTTGCG AAAGATGTTT TCAACCTTGC TTCTCTCCTT AGATAGCGCA TGGTTATAGG      8880
CTTTATCTTC AGCTGTAGC GGCCTGAGTT TGCTGGATTG ACGTGGAGTT TGTGCTTGAG      8940
GACATATCTT CATGAGCCCT TGATAACCAAC TGTCAGCCAA GATTTTACCA GCTTGTCCGA      9000
TATTTCTGCA ACTCATTTTG AACAACTTCA TATCATGACA ATAGTTCACA GTGATATCCA      9060
AAGAAACAAT TCTCCCTTGA CTGTGACAA TCGCTTGAGC CTTCATAGCG TGAAMTTTCT      9120
TTTTACCAGA ATCATTGCTT AATCTTTTTT TTAGGGCGAT TGATTTTAC TTCCGTCCGA      9180
TCAATCATTG CCGTGTCTCT AGAACTAAGA GGAGTTCTTG AAATCGTAAC ACCACTTTGA      9240
ACAAGATTGA CTCAACCCA TTGCTCCGA CGGATTAAAT TGCTTTCGTG AATACCAAAA      9300
TCAGCCGCAA TTCTTTCATA AGTGCAGTAT TCTAGGCTTA ATTTAGGTTT TGTTCACCT      9360
TTTGTGTTGT TAAGTTGATA AGCTGTTTTT AATACAGCTA ACATCTCTTT AAMAGTGTG      9420
CGTGAAACAC CAACAAGACG CTTAAATCGT GTATCAGTTA ATTGTTACT TGCTTCATAA      9480
TTTGCAGGAG AGTCTATTGA CTCTTTGGTA GGTGTCAATG TTTTPTTCAT CTATCCGAG      9540
AATTATTTTC CCGCCATTG TATTTGCAAA TGCTGAGTAG GTTCCCAGA AAGACTCTGG      9600
AAGATTGTTT TTAGCTTTTT TGTATTCTAA ATCAACCCCT TCAAAATTTA AGTCCATATT      9660
TTTCTTTTAC ATCTGTTTTT TGTGTTCTG GTATTGTTT AAGTTGAGT ATAAATATAG      9720
GAATTGAATT TCGAGAGTTT TTACTCAGTT AATTCTTTTT TTAACCCACT TTAATTGCTT      9780
TTTAAACAG GGTAAAAA GAAATTAAG TGGGTAAAT TTTTCTGA      9820

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(2) INFORMATION FOR SEQ ID NO: 42:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 3369 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 42:

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CCGCGAAGA TATTTTGGAA CAAGAGTTTG GACGTGAGGT CCCTGGCTAT AATAAGTAG	60
AAGTTGACGA GTTTTATAGAC GATGTCAATCA AGGACTATGA AACCTATGCT GCCTTGGTCA	120
AGTCACCTCG TCAGGAAATTT GCGGATTTGA AGAAGAATTT AACCTGTAAA CCGAAACCTTT	180
CACCAGTTCA AGCAGAACC CTGGAAGCGG CAATTACAAG TTCTATGACG AATTTTGATA	240
TTTTGAACG CCTGAATAGA TTGGAAGAG AGGTTTTTGG TAAACAAATTT TTAGATAACT	300
CAGATTTTGA AGTAGTTATT TGAGATGTGC AATTTTTTGA TAATCGCGTG AGGAGAATTG	360
TTTCTCATGA GGAAGTCCA TGCTAGCACA GGCTGTGATG CCTGTAGTGT TTGTGCTAGG	420
CGAAACCATG AGCCTAGGGA CGAGAAATCG TTACGGCAGT TGAAATGGCT AAGTCCTTGG	480
ATAGGCCAGA GTAGGCTTGA AAGTGCCACA GTGACGGAGT CTTTCTGGAA ACAGAGAGAG	540
TGGAACGCGG TAAACCCCTC AAGCTAGCAA CCCAAATTTT GGTGGGGCCA TGGAGTACGC	600
GGAAACGAAC GTAGTATTCT GACTGCTATC AGCTAGAGCT GTTAGTGTA GACAGATGAT	660
TATCGAAGGA AGTGCTCCTA GTCACTTCTG GAACAAACA TGGCTATGAG AAAATTCAT	720
ATAGGTTGGG GCTGAGAAAT TTTCTCAACC TCATTTTIA AAGTGGACAT ATGAGAAAGT	780
CTTGCAAGAC TGTAACATGA AAAAAGAATT TAATTTAATT GCAACTGTGG CAGCAGGGCT	840
TGAGGCTGTG GTTGGTGTG AAGTSCGAGA GTTGGGCTAC GATTGTGAGG TTGAAATGG	900
ACGTGTTCGT TTTCAAGGAG ACGTGAGAGC TATTTATCGAA ACCAACCTTT GGTTCGGGC	960
AGCAGATCGT ATCAAAATTA TCGTAGGAC GTTCCAGCT AAGACTTTTG AAGAGCTATT	1020
TCAGGGAGTT TTCGCTTTGG ATTTGGGAAA TTATTTACCA CTTGGAGCTC GGTTCCTCAT	1080
TTCAAAAGCT AAAATGTGTTA AGTCCAAJCT TCACAAATGAG CCCAGTGTTC AGGCTATTTC	1140
TAAGAAAGCT GTTGTCAAGA AATTGCAGAA ACACATATGT CGCCCGAAG GGGTTCCTCT	1200
GATGGAGAAAT GCGCCAGAGT TTAAGATTGA GGTCTCTATT CTCAAAGATG TGGCAACTGT	1260
CATGATTCAT ACGACCGGGT CTAGCCTCTT TAAACGTGGT TATCGTACCG AAAAAGGTGG	1320
CGCTCCTATC AAGGAAAATA TGGCAGAGC CATTTTACAA CTTTCTAACT GGTATCCAGA	1380
CAAGCCTTTG ATTGATCCGA CCTGTGGTTC GGGGACTTTC TGATATGAGG CAGTTATGAT	1440
TGCTAGAAAG ATGGGCCAG GTCTTCGTGC CTCTTTTGCA TTTGAGGAAT GGAACGTGAT	1500
CAGCGATGCG TTGATCAAG AAGTGCACAC AGAAGCGGCT AAAAAGATG ACCGTGAGCT	1560
TGAGCTGGAT ATCATGGGCT GTGATATTGA TGCTCGCATG GTGGAAATTT CTAGGCCAA	1620
TGCTCAGGTA GCTGGTGTG CAGGAGACAT TACTTTTAAG CAGATGCGCG TGCAGGATTT	1680
ACGTTCGAT ATAAATCAATG GAGTAATCAT TTCCAATCG CTTATATGGT AACGTTGTG	1740
AGATGATGCA GGGGTGACCA AGCTCTATGC TGAGATGGGG CAAGTATTTG CACCGCTGAA	1800

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AACCTGGAGC	AAATTTATCC	TGACTAGTGA	TGAAGCTTTT	GAAGCAAGT	ATGGTAGCCA	1860
AGCAGATAAG	AAGCGTAAGT	TATACAACGG	AACCTTGAAA	GTGGATCTAT	ATCAATATAT	1920
TGGTCAGCGT	GTCAAACGGC	AAGAGGTAAA	ATAGAAAGGG	ATACTCATGA	GTAAAAAAG	1980
ACGAATCGT	CATAAAAAAG	AAGGTCAAGA	ACCGCAATTT	GATTTTGATG	AAGCAAAAGA	2040
GCTAACAGTT	GOTCAAGTCA	TTCTGTAAGAA	TGAAGAAGTG	GAATCAGGAG	TCTTGCTCTGA	2100
GGATTCCATT	TTGGACAAAGT	ATGTTAAGCA	ACACAGAGAT	GAAATTGAGG	CGGATAAGTT	2160
TGCGACTCGT	CAATACAAA	AAGAGGAGTT	CGTTGAAACT	CAGAGCTGG	ATGATTTAAT	2220
TCAAGAGATG	CGTGAGGCTG	TAGAGAAAGT	AGAAGCTTCT	TCGGAGGAAG	TTCCATCTTC	2280
TGAAGACATC	TTACTACCTT	TGCTCTGGA	CGATGAGGAG	CAAGGCTGG	ATCCTCTATT	2340
GCTAGATGAT	GAATATCCAA	CAGAAATGAC	TGAAGAAGTG	GAAGAGGAGC	AAAACCTTTC	2400
TCGTCTGGAT	CAAGAGGACT	CAGAAAGAA	AAGTAAAAAA	GGCTTTATTT	TGACCGTTTT	2460
GGCGCTTGTA	TCAATATTA	TTTGTGTGAG	TGCTTATFAT	GTCTACCGTC	AAGTGGCTCG	2520
TTGACTAAG	GAATTTGAAA	CTTCTCAATC	AACACAGGCC	AATCAATCGG	ATGTGGATGA	2580
TTTTAATACA	CTTTATGACG	CCTTTTACAC	AGATAGCAAT	AAAACGGCTT	TGAAAAAATAG	2640
CCAGTTTGAT	AACTGAGTC	AACCTCAAGC	TTTACTTGAT	AAGCTGGAAG	GTAGTCGTGA	2700
ACATACGCTT	GCCAAATCTA	AATATGATAG	TCTAGCAACG	CAAAATCAAGG	CTATTCAAGA	2760
TGTCAATGCT	CAATTTGAGA	AACCAGCTAT	TGTGTGATGT	GTGTGAGTGA	CCAATGCCAA	2820
AGCCAAATCG	GATGCTAAT	TTACGGATAT	TAAACTGGA	AATACGGAGC	TTGATAAAGT	2880
GCTAGATAAG	GCTATCAGTC	TTGGTAAGAG	CCAGCAACCA	AGTACTTCTA	GCTCAAGTTC	2940
AAGTCAACT	AGCAGCTCAA	GTTCAAGTCA	AGCAAGTTCA	AATACGACTA	GTGAGCCAAA	3000
ACCAAGTAGT	TCAATGAGA	CTAGAAGTAG	TCGCAAGTGA	GTCAATATGG	GTCTCTCGAG	3060
TGCAGGGGTT	GCTGTTCAAA	GAAGTGCCAG	TCGTGTTGCC	TATAATCAGT	CTGCTATTGA	3120
TGATAGTAAT	AACCTGCGCT	GGGATTTTGC	GGATGTTGTC	TTGCAACAAA	TTCTGAGCGAC	3180
TTCAAGTTCA	CGTGCTATA	TCACTGGAGA	CCAATATATC	CTTGAACGTG	TCAATATCGT	3240
TAAACGGCAAT	GTTTATTACA	ACCTCTACAA	GCCAGATGGA	ACCTATCTCT	TTACCTTTAA	3300
CTGTAAAGACA	GGCTACTTTG	TCGGAAATGG	CGCTGGTCAT	CGCGATGACT	TAGATTACTA	3360
AGCAGTCGG						3369

(2) INFORMATION FOR SEQ ID NO: 43:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 9713 base pairs

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(B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 43:

AAGTTTACAA TTAAATGAA TTAACAATT TCCCACTAA AAGCACTCCA GTTACCGCAA	60
CGTTGTACT GAATGACTA AATCGCATTC CATCAACTTC ATCTGTTTGG TCAACTTGAA	120
CAGATACTAA TTGAAGATTT AATACTTCTG CTGCCATAGC TAGCTCCTCC TATTTAAATT	180
TTTGGGATTA AGTACTTTAT CCACCCCTCAT ATACTCTCTC CACCAGTAAA ATGCAAGCAA	240
TGATACAAA TAGATTTAAC TATTTTATAT AGCGAAACT TACAAATTTT TAAGAAATAA	300
TTTTTGCAAT CTTAAAGATA AAATAGGAAC TTTTAGTAAT AAATATTAAA ATAAATAAAA	360
TAATGATAC TATAAJAATT GGAAGTATTA ACCCCAAJAG ATTCATATCA TCTATTAAAA	420
TATCCTCTAA AGAGTAGTAT ATTAAAGCCA TAA'TTTTAAT GTTAGTAAA AATGCAATTA	480
ATGAAGTAAC AAATGTCAA AATATAGCTF CACCAACTTT AATCTTAAAC ATCTGGTAAT	540
TAGAAGTCC TAAAA'TTCA AAT'GCTGAA TCTCAATCCT TTCTTGATGC GATGACAJAA	600
ATGCAATTGA AATAATATTT GCAAGTACTA TCAAJAATGG TGCTCCTACA TAGACAATAA	660
ATGCTACTTT TAGCTCTAAA TCACTGTCTC CTGGAANTG AGATAGTATA TTCTGAGAAA	720
TCATTTGAAA ACTAGAAATF AGTAATATAG TCCCTGTAAF TGCAGCACTG ATAGATTTTA	780
TATAAGACTT ACAATATAGT AAATTCACAT TCGAAACAAT GAACATAAAA TTATTTCTAA	840
ATATAATTAT AGAAAGTAGT TTGATAAAAC ATGACTGTAT AAAAGAGAT AATTGATAAA	900
TAATCACAAAT ATCTAAGATT ACAATATTGA ATATTATCTG GGCTTCGCT AAAATTGTGC	960
TATCTTGGAA AATTGTGTGC AAAGAAAGCA ACCAGATAAC ACTAAAACCA GCCAATAGCA	1020
GTATCTCTTT TACTATTGAA AGAACATGCC TTATTTTAGA ACTCTTCCTA TTTCTAATCT	1080
TCTTGAACGT ATAAAAGCAA CCACCTTAGAA AGGCTAAAAA TGAATCAAC ACTACTGTAA	1140
TGATACATCC AACAGCACTC GTTTGAAATF GATATACAGG TAATATATTT TCCCCGAAAA	1200
AGTATTGTAA AAAATAATAA TAA'TTTGACG TAACAAATAT AGAGCATAGA TATGCAATAA	1260
AACTAATTAAT CGAGGAATG ATAAAATCT GTCCCCCAC AAGAAATGAT AGTTGAAGGC	1320
GACTTGCTCC CAACACTCC AGAAGTTCGT AATCATCTCT AAAAA'TTCA ACCAACAATAT	1380
TTATTATGTT AGAGAGCACA AAGAATAATG TTACTCCTCC GAATACTATC GGAACATAA	1440
AAATTGCTTT AGGATCTGGA AGTCCGACH ATACTTGCGA ATTATTCTCA ACATTAATTA	1500
CCCCATTAAC AGCCAATCCC ATAACTAAAC TCGAAACAAA AATTA'CTGCT GAAAGCCTTA	1560

ACCATTGTTT CTTATTATGT AAAAATTGAT AGTAAACTAA TCTGAGCATC TCTATTCCTC 1620
 CGTAGTNGAT TGTACCTCTA AGATTTTATA CAACCTCTCC CGGTAGGTG TATGAAGTTC 1680
 TTGAAAAATT TTCCATCTT TCAATAATA TGCACGATCA GTTTTCGAGG CCAATTCTAT 1740
 ATCGTGGGT ACCATAATTA CACACTTACC CGCCCCTACT AACTCTCTCA ATAATTCAAA 1800
 AATTACTTCA CGAGAAACGC TGTCTAAAGC CCCAGTTGGC TCATCAGCAA ATATATATATC 1860
 ACTATCAGCA ATACCGCTC TAGCTATAGC AACCTTCTGT TGTTCTCCAC CAGACAGAGT 1920
 TCCAACAAAA TCGTTTAAGC CAGCAATAAA CTTCATTCTT TTGATAAGT TTCTACATT 1980
 TTTAATAGTT AATTTTTTTT GTGATAATCG CAAAGGAAGT GCTATATTTT CTATTACCGG 2040
 CAGGGAAGT ATTAATTGT ATGCTTGAAA TATAAAGAT ACTTCGTAC GTCTATATCT 2100
 TGACAAATTT GCATTCTGA TTTTATAGGG GTTGATTCCA TTTAAAJTTA CTCCCCACT 2160
 TGTGGGTCA AGCAAACTAG AAATACATT TAATAAGTT GACTTTCAG AACCACTAAT 2220
 TCCTAGAATA CTATAAATT CTCCTCTCA AGCAGAAAGA GAAACATTTT TCAGCACTTG 2280
 CAACGTTTTA TTATTTCCTA GTAAAAATTG ATGATACAGC COTTCACTT TTAATATATA 2340
 ATCTTATCC ATATCTTCCG CTCCAATCAC TTAATTTTGA AAAGTGTCC ATTTTCCAAT 2400
 TTTATATAT CAGTGATCT CTCTCATTT AAGTCATAAT GATGTGAAAC TTCAATAAAT 2460
 GAAATACCTA AATTGAACAG AATATCATGT ATGGAATTG AATTATCATT ATCTAAATTA 2520
 GCTGATATTT CGTCAANTAA GTACACTTTA TTATTTCTAA TCAGAGCTCT AGCTAAAGCT 2580
 ATTTTTTGIT TTGACCTCC AGACAAATTA CTACCATTTT CACCACATG ATATTTAGT 2640
 ATATCATATC TTCTAATTC TTGATATAGA TTACCTTTT TTAACACCTC AATTATCTGA 2700
 TCATCTGAAA AATATTCATT TTGAAATAAA GTTACGTTCT CAGGAATAGT AGTGTCAAAA 2760
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 AAATTATCAT AACCTTTTG TGGCTTAAAG GAACCATTA TTAATTTAA AATCGTTGTT 2880
 TTCCCACTAC CAGAAGTCC TTTAATAAT ACCCTAAATG GTGACTTAAA TGAGAAGTCA 2940
 ATACTTAATT TATTTCTGG TGTAAATGAA TATACAACAT CTTTCATGTG TATCTCATCT 3000
 ATTGATGAAG TATACAGTCC GTTATTATCA TGTTCAGGT CTATAAAAT CTTCCTCTCCA 3060
 CTAAAGTAT TTAAGAACGG TTCTCTAAA TCTTGGTTG TATTTATCTT ATTTAATGAA 3120
 TAGCAAAATG ATTTGATCG CCCTAAAACT TTATCGTTTG CTAAGAAAA ACCTATCAGT 3180
 TCACPTAAAG AAAGGCTTTT ATGATAAATT AAAAAATAC ATCTTACAC CAAGGGAAC 3240
 AGAAAGCAA AACCTGAAT TAGTACTCA ACCAATTTTG AAAGAACCTC TGTGCTTTC 3300

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AAATTAAAG TAGAATCTTC TAGTTTATCC AACTTTTTAT CCGACAACT AATTATTCT	3360
TTAGTAACAG AATAAGATTT TAATGTCTTA AAACCAATTAA AAATTCTTTT TATTATGTGA	3420
GTATACTCTG CATTCCTGTT AGAGTACTCA TTAGCTGAAT TAGACAACAT CTCTTCATA	3480
AAGACAGGTA CTATAATCGG CAATGCTGAT AATACAATAA ATATTATTGA TACTAGGAAG	3540
TTTAAATAAA GCATAAACT TAGAGAGACG ATGAACAACA ATATTGAAGA AATTATTCCA	3600
AAAATTGTGC TAAATAGTT TTCTTCGATT AATCTCAAAAT CATTTGACAA AACTGAAATA	3660
ATAGATGAGT AATCTTTAAC CATTTACAGAA GAAAGATACT GTTCTCTAAA ATATCCTTGT	3720
TTAATTTTTA CATTATATC TTATGTTATT GATGCTTCCG TTACTCTTAA ATAGTAATTT	3780
GATATATAGA TTGCTGACCA ACCCAGAATA CTTATAGCAC CAAATCTTAG AACGTCAGAA	3840
AATGAGGAAG TCTGATTTAA ACTACCTGCA TATACAATAA TTCTTGAGAG CAAGACACCA	3900
TTAAACGAAG ATAGAAATAT TAAATCCCC ATTAATATAA GTTTAGTCTT TTTTATAAAT	3960
TTTAAATAAT TCATAGTTTA TTCTTCCCA CTCTCTCAA GAAATAATTT AAAGTATCAA	4020
TCATTAAGAG AACATCTGAT GGAGTAAJAC CTCATGACC AGCTGCTTTG TTTAAATACA	4080
ACAACTTTT AACTCCAATA GAATTAATTT TCTTTGACCA CTCTATCACT TCGTTATFAT	4140
TAATATATGG GTCTTCTCA CCCAAATAT TAACATAAAC AGTATTGAG TCTCGTGCCF	4200
TTTCAATATT TTGCATAGGC GAATATGACT TTATATAAGC CTTTACTTCA GGGTCTCTAA	4260
TATCTCCCCA CTCTGCTATT TCGTCTTAG AAAGAGGATC ATTTGGATTC TGAAGTGTAT	4320
CATAAGGATT TATAATGGC GAAATAAGA GAATGCTTTG CAATAAATTT TTTTCTCGT	4380
TCAACACCGC ACCAGCAATT ATTCCACCTG CACTAGAAGT TATTAAACCT AATCGCTTAC	4440
TGTCAAATAC ATCAATTTCC CTTAAATAAT TTAATCCCTC AATAAAATCT CTGATAGAAT	4500
TCCATTGTTT TAACGCCCTT CCTGAGCGAT ACCATTCCACC ACCCAATAG CCTCCACCTC	4560
TTACATGAAC TATAGCATAA ATAAAACCTG CATCTATTAT AGATAACATA ATTTCACTTA	4620
AATCAGAAAT ATCATTTCTTA CCATAAGCCC CATAGACACT TAGAATACAT TTTTCTCTC	4680
TTGGGAGCTC ATCCGATATC TCACTTTTC AAAATAAAGA AATCGGTATG CTATACATAT	4740
AACGTCTCTT TTATGTCAA ATCACCCTAG AAAAATATTT AGTATTATTC GATTTATTGA	4800
TGGGTCTTTC AAATTCAGTT TTTAATGTAT TTCTATTAA ATCAAACTA AGTATTTTTT	4860
CGTAAAGAT TCTCCTCTCT AAAAACGAA GAACACGATC AGAAAAAGAA TTTTCATAAA	4920
GTGTTGTCTT TTATCAAAAT GTTATCTTAT TAACACTCAA CTCCCTCAA CTATTATTTT	4980
TAAATGTAGC AAGATAAAG ACGGAATTCG CTGCTTTGA ACAGTCTAAA AGGATATAAC	5040
GTCTTATACA GTGAACCTTT CTAGCCCTAT CTTGATATGG TATAGTAATA GAAACTCTGT	5100

CTCCCGAAGA AGTTTCCCTT AGAATTAGTT GATCTTTCTT TTCTTCAGTT GAAGAGAGCC	5160
CAAGAAAGTA CTGTGCTTTT TCTGTACTAA ATAGAGCGAT ATCTCTAGGT GTTGGGGCTA	5220
CCGTTTCTGT GTAAGAGTGT CTAACAAAAC CCGTCCGGTC GAAACTGTAT AGAAAAATCC	5280
TGCCTTTCTG AAAGTCTACT GACTTTACAA AACAATTATT GCTATCAATG TGGACTATTT	5340
TTAATCGAAA AGAGCATTCG TTTTCTCAA ACAGTTCCTC TTCTGTAAAG CTATCAAAAG	5400
ATTATAGAA TAACTTACTT GGCCTCCCGT ACTCTTTGGA GCGAGTATAC ATAACACCGA	5460
ATTTACCCAA ATAGAACGAA CTTTCTACTG AAAATATCTC AATGATAAAAT AACTCTTCCA	5520
TAGTATATTT TTTTATCCCA ATTAATTAAG TCGTACGCAG TGAGGATACA ACCAAAACTA	5580
TATAACTCTC ATCAGATGAA ATCTTAACAT CCTGTAAAGT ACTATCATCT GGCAAAGTAT	5640
ATTTTCCAC ATCAAAGACA ATTTTAAGTG AATTGAATT GTCTAAACTG GAAGAACTAA	5700
CCTTAGGAAT CCAGTCATTA TCTTCGACAT ACCATTCTCT TATTACACCA GTATTGGGTA	5760
TACTCCAAAT ATCAAAATGG TACCAATATC GCCCTCTCCT AAATATCAAA GAATCCCAAT	5820
TTTTTAATTC CTGAAATGAT GAAGAGATAG ACCCTTTATA GTGTGTTTTT TCCTGTATTG	5880
TATTTAAAAA TATTTCAATTA CTCGTGATCA CAAATMGAC CCCTTAATAA TGGTATCTAA	5940
ATATTTATAT TGAGGAAGAA TCGTCAATTT ATTTCCCAAT ATTGATACCA ATCCAATTCG	6000
AACACCCGCA AATCCCGAAG CAATATCTGT TGTATCTTTT AAACCAATAT CTCCCGCAAT	6060
AACAAATCCT TCTTCAATTA CACACAAATA TCTATAAAGT TGTCAATTA ATTTCTTTTG	6120
TCTTGAAAAG TTATCATCGA TATCACTATA TATATTATTA GCAACTTCAA GACCACAAAA	6180
TCOGTTAAAT AAACCTGGTA ATACACAAAA AACTACATCA GTTGCCCTCT CTAAGAGAGT	6240
TAAATATTTT AAGTATTTCG TTGACAAAGT TTCTTTATTT CTATTAAATA GTAAAAGCAG	6300
GCCAGCACTT CCAGTTGCTA GATATGGTAG TAATCTATGA CCTTGGCTGT ACTGCAATGA	6360
ATTTATTACT TCTACTTTAT AAGCAACTAA TTCTTTATCT ACAGCCCAAT CTAGACCAAT	6420
TTTATAGATA CTTTCCACAG TTAATTTATA AGCTTCACCG AAGAGCCAAAG CTACCCCTGC	6480
GTGACCATAT AGTAATCCAC CAAAATCTC ATAAGGATCG TTAECTGTAA CATCACTAGC	6540
GCCAACTTTA CAAAAAGTTT CTGGATTTTC TATATAATTT AAAGTATATT CTCTAAGCCT	6600
AATATGATTT TCTTCTCCTA GTTTATTATC AATCCCCCT TTACTAAGAA AATACAGTCC	6660
AACCGATAA ATTCACGCTT GCCCATATA TAAATTTTTT TTTTGTGAAT TCTCAAAATAT	6720
CTCTATAAAA TGAGTTGTAA AAAAGTCAAC TGCCCGATCT ATCTCCCAAA ATTCATAAAT	6780
GAOCCAGATT GTACCAATTT TACCATCAA AAGACCAGAA AGGACGATT TCTTAAAAAT	6840

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ATTACTGKC TCATTAAYAA CCTGTGTCG AATCTCATAA TAGTCATCAA ACTTGAAAT	6900
TTTACTTTC TTAGTAGTGT GTTGATAACT CCAAAGGATA GCTAAATCTG AAAACGCAAT	6960
TCCTTGATTA AARTTCAGAC CATATAATG AACTGGGAAG AATCTTGATT GAAATCTTTT	7020
ACGCCACTGT CCATAAGTTA GCGTAAACCC TCTCAATAAT TTTATAATAA AATCTTGAT	7080
ATCTTGCTCA CTCTCGATAG TTCTAATCTC ATGCGTGGT TTTAAACCTT TTTTCTGGA	7140
AATATCTCA ATCTGTGAC ATTTAGAAATC TAGATATGAC AATAAACTTT CTACATAATC	7200
TATATGTTCT CTGTATAAC CCAAGACTC AAATAGTTTT TTTCTTCTA TCCTGGTTTG	7260
ACTTACATAG TTGTATGTCA AATCCGATGT AGTTACTAGT GGCATGTATA AATAATGAGC	7320
TATTTGTCTA ATACCATACC AATCTATCTC ACTGGGAAGT GTTCTCGCC ATGCTCTAAA	7380
ACCAAGGGCT GCAACTTTAT GTACAACTTT TTCATCATTT GAAAAGACAG CCTGTCTCCA	7440
GTCTATTATA CTAATCTCAT CTTCATCCTT AACCAAGATA TTTCTTAAAT GTAAATCTTG	7500
ATCATATACA TTTTCAGAA GAAACTTATT CGTTAAATCG ATGAGTTTTT CTACTATCTT	7560
TGAAACTCTC AATAGATAAT CTTTGGTCTT ATCAACAACCT TCATATAAAG GAAATATTAT	7620
GGTAACCCAT CTATTTAGTG GAACGCCCTT CATATGTTCA ATTCTTAAGA AGCTGTCTC	7680
CCAGATCTTA CCGTGCCAGT ATATTTTAGG CGTCTCACTC CATTCATTTA GAATTTTAG	7740
TGCTTTGCAC TCCGAAGCTA ATTTCTCTGA AGAATAGTA CCAACAAATC CTAGACCTGT	7800
ATACGGTCTA GCGCTTTTA AAATTATTTT TTTCCTATCT TCTTTTAGCC TAGCATATA	7860
TATCCACCA CTGTTTGAA ATCTAATTGC ATTATCTATA ATAAAGGAA AGTCTCCCTG	7920
TTTTTTATCT TTCTTGTCAA GCCATTTATT CAAAAGTCA GGGGCCACTA TACCTTTGG	7980
AATTTTAAT ACTGGTAAAC GTTCACTTT AACAACTTCA TCGCCAAACA TTAATTCATC	8040
AATAGCAACC TTCTTTTCAT CATCCCTTGA CGGCCTAAAC ACACCATACC TCAGATATAT	8100
TGGTGCTTCA TCCCAAGCTT TATCGCTTAA AATATATGGC CCAATATATT GCTTTAAGGC	8160
ACTTTCTAAC CTTTGCAAAA CCGACTCTAA TTCAATTGTA TTTGGATAAC ATGTAATAAA	8220
TTTACCAGAA AATCCTCGAC TAACCAATTT CCCGTTTCGC ATGATAAAT TTGCTCTGT	8280
ACTAAGATGT TTAATTTGAA TTGCAATTC ATGGCAATTT TTGCTACAT CTGTGACAA	8340
TTTATGTGAA CTGTATACT CTGAACATA GTGTATTTTC CACCCTTGT TTTCACAAA	8400
TTTTCAGATA GGTATTTGAT AAACCACTC ATCATATTTC ATTACTCTGT GCCAATTA	8460
AGCGAGACTT ACTTGGTACT TTATGCTAGT ATCTGTACTA TAATCATTAT TAGTGAAAA	8520
GAAAGATGC TCCAAATTGA AATTATAATC CATAACAAA TTCTCAAGAA ATTTTATCAA	8580
ACTTAATATA TCTATAGCTA GACAGACTTA TTAAATAAAA AAGGAGAAAT CCTTTGGATT	8640

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CTCCCCATAT AAGCACTAAC ATTCCAACGT GCACATATTG GAACGACATC CATAACTCCA      8700
GAGAATCTCT AAAGTTTACA ATTTAAATGA ATTAACAATT TTCCCAACTA AAAGCACTCC      8760
AGTTACCGCA ACGATTTGTA CTGAATGTAC TAAATCGCAT TCCATCAACT TCATCTGTTT      8820
CGTCAACTTG AACAGATACT AATTGAAGAT TTAATACTTC TTCTGCCATA GCTAGCTCCT      8880
CCTATTTTAA TTTTGGGAT TAAGTACTTT ATCCACCCTC ATTATACTCT CTCACCAGT      8940
AAAATGCAAG CAATATATA ATGTGTGCAC ATAGAAAATA ATGTTCCGT AACTTTTCAA      9000
AGTAACTTCC ATCTCTCTCC CAAAACGGA AGTTAGTTT AGAAGTTACC TAAAAATCAG      9060
GTCACCTATT TTA AAAAAGC AGCAAACTAT AAATAGTAG GTTCCACACC AAATGTAGTC      9120
CCATACTGCC CCATAAGTCA GATTATAGC GCACCATACC TAAAAACATC CCAAGTGAAA      9180
CATACAACA CCAAGCTAGA ATGGTTCCTG TATGATGTGC TAAGGCAAAAT AAAACACTTG      9240
TCAAAGCAAC TCTGATATCT AATTTTCTGA CCAAATTCCT TAAJAATTCT CGATACAGAA      9300
ATTCTTCAAC CATACTGCA TTGATTAGA ACAATAAAAA TGAAAACCAA GGAATTTGAT      9360
GTTGAAGGCC AATTAAGTTT GCTTGATTG TGCTTCCTTG AGCATGAATC AGACTAAJAC      9420
ATAGACTTAT AATCAGTAGG CTACAAATTT CAACACCAAG CCATTTCAATC CTAGATTTCA      9480
TATTGACCTT ATGCGCTTGT TTGCGTTGGC CATACATCCA TAAAAAGAA ATGAGTGAGC      9540
AACCATAGAG AATCTGTAGT ATAGTTmACT CACCGATACA AAGAAATTTC AATAAGTATA      9600
GAGrTACCAA TAsGACATTT ACTTGTGGA ATATATAAAC TGAATATTAT CTTTTCATAG      9660
TTACCTCCGA AATAAATCTT CATAATCTAA ATCTAATACC TGCACAATCC TTT      9713

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(2) INFORMATION FOR SEQ ID NO: 44:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 8657 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 44:

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AAAGAAATTG TCAGAGAGTG GCTAGATGAA GTAGCAGAGC GGGCTAAGGA CTATCCAGAG      60
TGGGTGGATG TTTTCGAGCG TTGCTACACC GATACCTTGG ACAATACGGT TGAATCTTGA      120
GAAGATGGTT CAACTTTGTG CTGACTGGG GATATTCTCG CCATGTGGCT TCGAGATTCTG      180
ACAGCCCAAC TCAGACCTTA CTTTCATGTA GCTAAAAGAG ATGCCCTCCT GCGTCAGACC      240
ATTGCAGGTT TGGTCAACG TCAGATGACC TTGGTACTCA AGGATCCCTA TGCTAACTCC      300

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TTCAACATTG AGGAGAACTG GAAAGGGCAC CACGAGACTG ACCACACAGA CCTTAACGGC	360	
TGATCTGGG AGCGCAAGTA TGAGGTGGAT TCGCTTTGCT ATCCTTTGCA GTTGGCTTAT	420	
CTCCTCTGGA AAGAGACTCG CGAGACTAGT CAGTTTGATG AGATTTTGT OTGACGGACT	480	
AAGGAATTC TCCATCTGTG GACGGTGAA CAGACCACA AGAATCTCTC TTATCGTTTT	540	
GTCCGAGATA CGGACCGTAA GGAAGACACC TTGGTAAATG ATGGCTTTGG ACCTGACTTT	600	
GCAGTGACAG GTATGACTTG CTCAGCTTTT GATCCGAGTG ATGACTCTTG CCAATATACT	660	
TACTTGATTC COTCAAATAT GTTTGCTGTA GTAGTCTTGG GTTAATGTGA AGAAATCTTC	720	
GCAGCATTA ACCTAGCTGA TAGCCAGAGT GTTATTGCTG ATGCCAAGCG TCTTCAGGAT	780	
GAAATCCAA AAGGAATCAA AAACCTACGT TACACCACCA ACAGCAAGCG CGAAAGAGAT	840	
TACGCTTTTG AATGTGATGG CCTAGGAAAT GCCAGCATCA TGGATGATCC AATGTACCA	900	
AGTCTACTAG CTGCGCCCTA TCTGGGCTAC TGTTCCGTGG ATGATGAAGT GTATCAAGCT	960	
ACTCGTGTA CCATTTTGAG CTCTGAAAT CCATACTTCT ACCAAGGAGA ATACGCAAGC	1020	
GGTCTCGGCA GTTCTCATAC CTCTATGCG TATATCTGGC CAATCGCCCT TTCTATCCAA	1080	
GGCTTGACAA CAAGAGATAA GGCAGAGAAA AATTCTTTC TGGATCAGCT GGTGCGCTGC	1140	
GATGGTGGTA CAGGTGTCT GCGAGAAAG TTTCACTGAG ATGATCCGAC CCTCTACTCT	1200	
CGTGAATGGT TCTCTGCGC TAACATGATG TTCGTGAGT TGGCTCTGGA TTACTTGGAT	1260	
ATTGCGTAAG GGGCTGCGTT TAGCTCAACC GATTCCTATC AGAATCACAA GTTTACATTT	1320	
AAAAAGTTAA AATTAAATTT TAGAATGAGG TTTTACTTCA TGGAAAAATG TGTGTACMT	1380	
ATTATCTCAC ATAGTCACTG GGATCGTGAG TGGTACTTGC CTTTTCAAAG CCATCGTATG	1440	
CAGTTGGTGG AATTGTTTGA CAATCTCTTT GATCTCTTGG AAAATGACCC TGAATTCAG	1500	
AGTTTCCACT TGGATGACA AACTATTGTC CTTGATGACT ACTTACAAAT TCGCCCTGAA	1560	
ANTCGCGACA AGGTCCAAAG CTACATTGAC GAGGCGCAAC TTAAAAATGG TCCCTTTTAC	1620	
ATCTTGCAGG ATGACTACTT GATCTCCAGT GAAGCCAAAG TCCGCAATAC CTTGATTGGT	1680	
CAACAAGAAG CTGCCAAATG GGTAAATCA ACCCAGATTG GCTACTTCC AGATACCTTT	1740	
GGAAATATGG GACAGCGCG TCAAAATCTT CAAAAATCAG GCATTCACGT GGCAGCCTTT	1800	
GGTCTGTGTT TGAAGCCGAT TGGATTTGAC AACCAAGTCC TTGAAGATGA GCAGTTTACG	1860	
TCTCAGTTT CAGAAATGTA CTGCGAGGOT GTGGATGGTA GTGCTGTTTT AGGTATTCTC	1920	
TTTGCCAAT GGTACAGTAA CGGGAATGAA ATTCCAGTTG ACAAAGATGA GGCCTTGACC	1980	
TTCTGGAAC AAAAATTTGT AGATGTGCGT GCCTACGCTT CGACCAACCA ATGTTTGTATG	2040	
ATGAACGCT GTGACCACCA GCCTGTACAG AAAAATCTGA GCGAAGCCAT TGTGTGSCA	2100	

AATGAACCTC TCCCGATGT AATCTTTGTT CATAGTTCTT TTGATGAATA TGTTCAGCT	2160
GTAGAAGGTG CGCTTCCTGA ACACCTTATCA ACTGTTACAG GCGAGTTGAC CAGTCAGGAA	2220
ACAGATGGCT GGTACACACT TGCCAACTCT TCTTCATCCC GCATTTCACCT AAAACAAGCC	2280
TTCCAAAGAA ATAGCAACCT CCTAGAGCAA GTGGTAGAMC CCTTGACTAT TATCACTGCT	2340
GGACACAACC ACAAGGACCA GTTGACCTAT GCTTGGAAAA CACTTTTGCA GAATGCCCCA	2400
CATGATAGTA TCTGTGGCTG TAGCGTGGAC GAAGTTTACC GCGAGATGGA AACGCGTTTT	2460
GCCAAAGTCA ACCAAGTAGG AAACCTTTGTT AAAAGTAACT TGCTCAAAGA GTGGAAGGCT	2520
AAAATGCTA CGGATAAGG TCAAAAGTGAC TATCTCTTFA CTGTCTATTAA CACAGGCTTG	2580
CATGATAAGG TCGATACTGT CAGCACAGTG ATTGATGTGG CGACTTGTGA TTTCAGGAA	2640
TTGCACCCAA CAGAAGGCTA CAAAAAGATG GCTGCTCTTA TCTTGCCAAAG TTACCGTGTG	2700
GAGGACTTGG ATGGTCGTCC TGTAGAGGCT ACAATCGAAG ACCTCGGAGC TAATTTTGAG	2760
TATAATTTCAC CAAAGACAA GTTCCGCCAA GCTCGTATTG CTCGTCAGT GCGCGTGACC	2820
ATTCCAGTTC ACCTAGCGCC GCTTCTTTGG ACAACCTTCC AATTGCTTGA AGGAAAACAA	2880
GAACACCGTG AGGGTATTTA CCAAAACGGA GTGATTGATA CACCATTCGT AACGGTGAGT	2940
GTGGATGACA ACATCACAGT CTATGACAAG ACAACTCACG AAGCCTATGA AGACTTTATC	3000
CGCTTTGAAG ACCGTGGGGA CATCGGAAC GAGTATATCT ATTTCCAACC AAAAGGAACA	3060
GAGCCAATCT TTGCAGAGCT TAAGGGCCAC GAGGTCTTGG AAAACACAGC TTGCTATGCT	3120
AAAATCTTGC TCAACATGA ATTGACCGTG CCTGTCACTG CGGATGAAAA GCTAGAAGAA	3180
GAGCAACAAG GTATCATCGA GTTTATGAAG CGTGAGGCTG GACGCTCAGA AGAATTGACA	3240
AACATTCCTC TGGAACCTGA GTTGACTGTC TTCGTTGACA ATCCACAAAT CCGCTTCAAG	3300
ACTCGCTTTA CTAACACTGC CAAGGATCAC CGTATCCGCT TCTTGGTCAA GACTCATAAC	3360
ACGCGTCCAA GCAATGATTC TGAAGTATC TATGAGGTGG TGACACGACC AAACAAACCA	3420
GCTGCTTCAT GGGAAAACCC TGAAAATCCT CAACACCAAC AAGCTTTTGT CAGTCTGTAT	3480
GACGATGAAA AAGGGGTGAC TGTATCCAAC AAGGGATTGA ATGATAACGA AATCCTTGCG	3540
GATTAACACCA TTGCCGTGAC CATTTTTCGT GCATCAGGTG AGCTAGGTGA CTGGGGCTAC	3600
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CACCAAGCCC AAGAACGCTT CTCAGCCTAT CGTCGTGCCA AAGCCTTGCA GACACCGTTT	3720
ACCAAGCCTTC AGCTTGCTAG ACAGGAAGGA AGCGTGCTTG CGACTGGTAG CCTCTTGAGC	3780
CATTCTGTTT TCAGCATACC GCAAGTTTGT CCAACAGCCT TTAAGGTAGC TGAAAAATGA	3840

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GAAGGCTATG TGCCTCGTTA CTACAAATATG TGTAGTGAAA ATGTACGTGT GCCAGAAAGT	3900
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CCACAAGAGA TTGTCACAGA ATTCATCAAA AAGAAGAAA TTTAATTTCA AAAAGTAAAC	4020
ATCAAAAGAA AGGAGGGGGG AAAAAGTAAG AACTAACTGC TGATTGCGCC CTTTTATGGT	4080
AAAACAATG ACCATTGCAA CGATTGATAT CGGAGGACT GGGATTAGT TTGCGAGTCT	4140
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TTTACTAGCG TGGCTAGATC AACGCTTGTG AGAACAGGAT TACAGTGGGA TTGCTATGAG	4260
CGTCCAGGT GCAGTCAATC AAGAGACAGG TGTGATTGAT GGCCTTCAGTG CGGTGCCCTA	4320
CATCCATGGC TTTTCTTGGT ATGAGGCGCT TAGCTCTTAT CAGCTACCTG TCCATTTAGA	4380
AAATGATGCC AACTGGGTG GACTCAGTGA ACTACTAGCT CATCCAGAGC TTGAAAATGC	4440
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TCGAGGTGCG CACGGTCTGG GTGGAGAATT TGGCTACATG ACAACCCCTG CCCCTGCTGA	4560
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AAAACTGGT CATACTGATT GGGACGGTCG CAAGATTATC CAAGAGGCCG CAGCTGCTAA	4680
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TATCCAGTAT CTGATGATC CAGGTGTCTAT CAGTCTGGGT GGCCTCTATCA GTCAAAATCC	4800
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CACGTCGCA CCAGTTATCC AGGCCTGCAC CTATCACGCA GATGCCAATC TCTACGGTGC	4920
TCTTGCTAAC TGGCTACAGG AGGAAAAGCA ATGGTAAGAT TTACAGGACT TAGTCTCAAA	4980
CAACGCAAG CTATTGAGGT TTTAAAAGGT CACATTTCTC TACAGATGT GGAAGTGGCT	5040
GTCACTCAGT CTGACCAAGC ATCTATCTCT ATCGAGGGTG AGGAAGGTCA CTATCAATTG	5100
ACCTACCGCA AACCTACCCA ACTTTATGTT GCCTTGTCCT TGTGGTAAAC AGTCTTAGCA	5160
GAAGCTGATA AAGTAGAGT TGAGGAACAA GCAGCTTACG AAGATTGGC TTACATGGTT	5220
GACTGTTCTC GAAATCGGCT GCTGAATGTG GCTTCGCCA AGCAGATGAT TGAGATATTG	5280
GCTCTCATGG GCTACTCAAC CTTTGAAGCT TACATGGAAG ACACCTTACCA GATTGAAGGG	5340
CACGCTTACT TTGGCTATTT CGGTGAGCT TATTACGAG AGGAGTTGCA GGAATGCGAA	5400
GCTTATGCC AACATTTTGA CGTGAACCTT GTACCATGCA TCCAGACCTT GCGCCACTTG	5460
TGCGCCTTTG TCAATGCGG TGTCAAGGAA GTGCAGGAGC TCCGTGATGT AGAGACATT	5520
CTTCTCATTG GCGAAGAAAA GGTTTATGAC TTGATTGATG GCATGTTTGC CACGTTGCT	5580
AAACTGAGAA CTCGCAAGGT CAATATCGGG ATGGACGAAG CCCACTTGT TGGTTTGGGA	5640

CGCTACCTGA TTCTGAACGG TGTGTGGAT CGTAGCTCC TCATGTGCCA ACACCTGGAG 5700

CGCGTGTGG ATATTGCTGA CAATATGOT TTCCACTGCC AGATGTGGAG TGATATGTTC 5760

TTCAAACCTA TGTTCAGCGA TGGCCAGTAC GACCGTGATG TGGAAATTC AGAGGAACT 5820

CGTGTCTACC TAGACCGTCT CAAAGACCGT GTGACTCTGG TTACTTGGGA TTATTATCAG 5880

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AATACTGGTC TAACGGTTGA GGATTTTATG CAGATTGACC TTGCCAACCT CTTACCAGAC 6240

CTACCAGGCA ATCTCAGCGG TATCAATCCC AACCGCTATG TTTTATATCA GGATATCTCT 6300

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TCATGCTCAC GCATTTTICA TGGATAATGT TGAGTGGAGT CATGCAATC CTACTTTTCG 7320

TAGCTTTGTT AGTGACGATG TTGAAGAAC TACACAGAA AATGCTCATC TGGATAGCCT 7380

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AAGTGTCAAA CAAAAATTA AGTTTATTTT CGACTTCGGT GATGAATGGC GTTTTGAATG	7440
CCAAGTGCTG AGAGAAATCG AGACAGAGGA CGAAGAAGCT TATCTCGTAC GTTCGGTTGG	7500
AACGTGCCCA GAACAATATC CAGATTATGA TGGTTTGGAC TATGAAGAAT GGTAAAATG	7560
AAATCAGTCT GTGTAGGCTT AGTATTTCGA TAGACTTCCT GCAAACTAG AATCTAGTT	7620
CATCATTTGAT AATACCAGCA ATCAAAATCA TTCGTAATCC GAAGCGTTTA CGATGATTTC	7680
GATAGGTTGT TGAACAACAT TTAACCGTTT TTACTTTGGC AAAGATGTTT TCAACCTTGC	7740
TTCTCTCCTT AGATAGCGCA TGGTTATAGG CTTTATCTTC AGCTGTTAGT GGCTTGAGTT	7800
TGCTGGATTT ACOTGAAGTT TGTGCTTGAG GACATATCTT CATGAGCCCT TGATAACCAC	7860
TGTCAGCCAA GATTTTACCA GCTTGTCCGA TATTTC TGCA ACTCATTTTG AACAACTTCA	7920
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TCGCTTGAGC CTTCATAGCG TGAAATTTCT TTTTACCAGA ATCATTCGCT AATTCTTTTT	8040
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GGAGTCTGT AAATCGTAAC ACCACTTTGA ACAAGAGTTA CTTCAACCCA TTGGCTCCGA	8160
CGGATTAAGT TGCTTTGCTG AATACCAAAA TCAGCCGCAA TTTCTTCATA AGTGGGTAT	8220
TCTAGGCTTA ATTTAGGTTT TCGTCCACCT TTTGCGTGT TAAGTTGATA AGCTGTTTTT	8280
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GGTGTCAGT TTTTTCAT CTATCCCGAG AATTATTTTC CCGCCATTGG TATTTGCAAA	8460
TGCTGAGTAG GTTTCOCAGA AAGACTCTGG AAGATTGTTT TTAGCTTTTT TGTATCTTAA	8520
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GTATTTGTTT AAGTTGAGTG ATAATATAGC GAATTGAATT TCGAGAGTTT TTAAGTCTG	8640
AATTTCTTTT TTAACCC	8657

(2) INFORMATION FOR SEQ ID NO: 45:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 11384 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 45:

TCTATTTTGG GTATAGACTT ACCTATAAAG AAAAATATCT ATACACTGCC TTAAGTACCTA	60
TACTGAACGA GTCAACAAAA ACGATATATA TTGATGATAT AAATACAGCA AGATTTTTTTA	120

ACITCTTTGG CAATGATATT CCTAATTCGT CTTTAAAAA AATTGACTAT ATCGCACCTT	180
CAGAAATTGT TTCAATTTAGT ACGTACGTTT GACAAAGTTC TAAAGTAAAT CCTAAAAATT	240
TGGGAACATAT ATTAAATCA AGTTTTTTTAT TAGAGAAATAT AGATGTTTCT GGTACACTG	300
TAAATATTTT AGAAGATCAA TTAAACAAAC ATAGAACAAT CAAAATTAGT AAAAACAAC	360
TGGTTGATCT CATGTATAAA TACCTAACAA AACCACGGCG CTTCCTTGCT GATGGAAGA	420
AAGGTACAAA TACATGAATA TCAAGAAJAA AATCMAAAG AATGGCCAAA GAGTTTATTA	480
TGCTAGTGTT TATCTAGGCG TTGACCAAT AACCGGCAAA AAAGCCCGTA CAACTGTAC	540
AGCAACCACT AAAAAGGGCG TTAAAGTAAA AGCGCGTGAT GCGATCAATA CTTTTGCTGC	600
TAATGGCTAT ACAGTTAAAG ACAAGCCGAC AATTACAACA TATAATGAGC TTGTAAAAGT	660
TTGGTGGGAT AGTTACAAGA ATACAGTTAA GCCAAATACT CGCCAATCCA TGGAGGGATT	720
GGTTAGAGTG CATTATTGCG CTGTATTTGG CGATTACAG CATCTAAAC TTACTACGCC	780
TATCTCTCAA CAGCAAGTAA ACAATGGGC TGACAAGGCA AATAAAGCG AAAAAGGGGC	840
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TATCCAGGTA ATACAAATACA ACCCAGCTAA TGATGTCATC GTTCCACGCA AACAGCAAAA	960
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ATTGGCCACT GGTGCGCTA TTAGTGAGGC TCTGGCTCTT GAATGGTCTG ATATTGACCT	1140
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ATTCTCTGTA TTTACGGAGA AATATGCTTA TGCTGTGTAAC TTAAGCAAC GCCTAAATAA	1380
GCATTTTGAT GCTCTGGAG TAACTAACGT ATCATTTTAT GGTTCCTGCC ATACACATAC	1440
TACTATGATG CTCATGCTC AGGTTAGCC GAAAGATGTT CAGTATAGAT TAGGCCACTC	1500
TAAATTAATG ATCACTGAAA ATACTTACTG GCATCTAAC CAAGAGAATG CAAAAAAGC	1560
CGTCTCAAA TATGAACAG CTATCAACAA TTTATAAAA ATAAGGGTGA CCCATTTCCG	1620
GGCTACCTC TTACTATACC AAAAATTAGT AGGGGTAGTA AAAAGGGTAT TAAATTATTA	1680
AAAGCACTAA GGGAAAGCC CCCAAGTGC TTAATTCAA GGGTTTATAG CCTATATCA	1740
CATAAGAGA TTAATTTTTTA AGGTGTAGA ATGATTTCAA TCCACGATAT TCAGTACTT	1800
CACCAAGTGT GTCTTCGATA CGAAGCAATT GGTGTATTAT AGCGATGCGG TCTGTACGTG	1860

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AAAGTGAACC	AGTCTTGATT	TGTCCTGCGT	TAGTTGCAAC	TGCAATATCA	GCGATTGTTG	1920
AATCTTTCAGT	TTCAACGTAA	CGGTGTGATA	CAACAGCAGT	GTAACCAGCT	TCTTTAGCCA	1980
TTTGGATAGC	TTCAAAAGTT	TCAGTAAGAG	TACCGATTTG	GTTAACCTTG	ATAAGGATTG	2040
AGTTFAGCAGC	ACCTTCTTGG	ATACCAAGTG	CAAGGTAGTC	AGTGTTTGT	ACGAGAGAGT	2100
CGTCACCAAC	AAGTTGTACT	TTCTTACCAA	GACGTTCAAT	AAGAGCTTTC	CAACCATCCC	2160
AGTCGTTTTC	ATCCATACCA	TCTTCAATAG	TGATGATTGG	GTATTTGTTA	ACCAATTCTT	2220
CAAGGTAGTC	GATTTGTCTT	GCAGATGTAC	GAACAGCAGC	ACCTTCACCT	TCAAAATTAG	2280
TGTAGTCGTA	AACTTTACGT	TCTTTATCGT	AGAATTCTGA	TGAAGCACAG	TCAAAATCGA	2340
TAAATACGTC	TTTACTCGTT	ACATATCCAG	CAGCTTCAAT	CGCAGCAAGG	ATAGTTTCAA	2400
CACCACTTTC	AGTTCCTTCG	AAACGAGGAG	CGAATCCACC	TTCTGTACCT	ACGGCAGTTC	2460
CCAAACCAAG	TGATTTAAGG	ATTTTCTTAA	GAGCGTGGAA	GATTTTCAGCA	CCGTAACGAA	2520
GGGCTCTTTT	AAATGTTGCG	GCACCAACTG	GCAAGATCAT	GAATCTTTGG	AAAGCGATTG	2580
GAGCGTCAGA	GTGAGAACCA	CGGTGATGA	TGTTTCATCAT	TGGAGTTGGA	AGAACTTTAG	2640
TGTTGAATCC	ACCAAGATAG	CTGTAAGGTG	GGATTTCAAG	GATGTCAGCA	GCAGCAGAG	2700
CTACAGCGAT	AGACACACCG	AGGATTGCAT	TCGCACCCAA	TTTACCTTTG	TTAGGAGTAC	2760
CGTCAAGTGC	GATCATAGCA	CGGTCAATAG	CTTGTTGATC	ACGTACATCG	TAGCCAAATG	2820
TAGCTTCAGC	AATGATGTTG	TTTACGTTGT	CAACAGCTTT	TTGTGTACCA	AGACCACCGT	2880
AACGAGATTT	GTACCGCTCG	CGAAGTTCAA	CTGCTTCGTG	TTCCACCAGTA	GAAGCTCCTG	2940
ATGGAACCAT	ACCACGTCGG	AAAGCACCTG	ATTCAGTGTA	AATCTTACTT	TCAAGTGTTG	3000
GGTTACGCGG	TGAGTCTAGG	ACTTCGCGAG	CGTAAACATC	AGTAATAATT	GACATTTTTT	3060
ACTCTCCTTA	TGAGTTAAAT	TTTTTACACC	TCTATAATCT	CTTAAACCCT	CTCCTTTTTT	3120
AAGAAAAAAG	GTATCTTTTG	TGCAACTTTT	CCTTAACTTT	ATAAAGTAAT	CGCTTCTTTT	3180
TGTCGTGTTT	ATTCTAAGTT	TTATGATATA	CTGTTTTCAT	GACAGATTTA	TCAAAACAAT	3240
TACTTTGAAA	AGCTCATGGT	GGGTAAAAA	TAAATCGGA	TGAGCAAAAG	CGCTATCTTG	3300
GTACTTTTGA	GGAAAGAGTT	CTTGGAATG	TAGATATTGA	CACAGCAAAAT	AGCCCTCAGT	3360
TAGAAAAAGG	CTTTTATTAT	ATTTTAGAAA	ACCTTCAGGA	AAAAGCAGAG	CCACTATTTG	3420
TGAAGATTTT	ACCAACTATC	GAATTGTATA	AGCAAGTTTT	TACTTTAAAA	GAAGCAAAAG	3480
AAACTGATAG	TCAAGCCACC	ATAGTATCTG	AAGAGCATAT	TACTTCTCCT	TTTGGCCTGG	3540
TTATTTCAATG	CAATGCACCA	GTTCAGTAG	ACAAAAAGA	CCTTCGACTT	GCTTTTCCAA	3600
AACCTTGGGA	AGTTAAAAAG	GAAAGAACAG	CACAAACATC	CTTATGGAAG	AAATGGTTTA	3660

GCATAATCTT GCACATATTT AATAAGTGGC CAATATTGGC AGCGTGCGC TCCAGATAGA	3720
AACCTGGCATT TTTCAAACTA TCTTCTAAAG GTTCACCTTT CTCCAAAATA GAAAAGACAG	3780
CTTGATATTT TTCAAATGGT AGGGGAGGTA AATCTTCAGC AAGACTACCG CAANTAGCAA	3840
TAAACAGGAAC TCCACAGGG GTTCTTTTGG CAACACCTAT AGGCGCTTTC CCAGCAAAGC	3900
TTTGACTATC AAGTCTTCCT TCTCCACAA CAACCAAGTC AGCATCTGAA ACTTCTCTAT	3960
CBAAGTTGAT TAAGTCCAAG CAGGTATCAA TTCCAGACAC GATACCTGCC TGAGCAAAGG	4020
CACACAAACC ACCAGCAAGG CCTCCACCTG CTCTGCTCC TTAAATTTCT AATGTTGAG	4080
GTGAGAATTT TTCATAAAAA TCTTGGATCG CCTGATCTAC GACTGCAAC ATAGTCGGAT	4140
GTAGACCTTT TTGATTGCCA AAAGTGAAG TCGCACCTTG ATGACCACAT AAGGGACTCA	4200
CGACATCTGC TAAAAATATGA ATTTGAACAC CTTCAGGAAT TTTATAGCAA TTTTCTGTTG	4260
AAACAGGAAG TAAGTTTAA T AAGGATTGAC CGGAAGCAGG CAAGACATTT CCAATCCCTAT	4320
CATAAAATTC ATAACTAAA CCAGCAGCAA TCCCAAGTCC TCCATCATTA CTGGCCCTGC	4380
CACCAACACC GATATAAATA TCTTTAATCC CTTTAGAGAT GAGATGAAGA ATCAACTCTC	4440
CAATACCACA AGTTTGGATT TGAAGTGGAT TTCTGTTCTC TAGCGGAATT TTTCGAAGAC	4500
CAACCAAGTC AGCTACTTCA AATAGTGCCA GTTCCCTTT TTGAAAATAG CGCATGGCTT	4560
CTTTTTGTC AAAAGGGTCT GTCACTTGGG TCCATTTTTT TTTTAGGTCA AGAGAATGTC	4620
GGATAGCATC TACAGTACCT TCTCCCCCAT CACCAACAGG GCAGAGGAGA CATTCTACAT	4680
CTGCTATCGA TTGTTGGAG OCTCTTTTTA TTGCTTCAGC TACCTGTTGA GCTGTCAAGC	4740
TTTCTCTAAA CGAATCCGGT GCAATTACAA TCTTCATATT TCTCCTCAT CTAAACAGTC	4800
AATCAAAAGG AGAACTCTTA AAAAACTCCT CTGTCAACA TGATGTGGTA TTCTTTTTTT	4860
GAGCACTTCT TTGGCACA AAAGCGATTCC TAACTTCGCC GACTTCAACA TTAATAGATT	4920
ATTAAACCCA TCACCGATTG CCACCGTTCT TTCTTTAGAA AGTTTAGTT TCTTTCCTCA	4980
TTTTTTCAGA GTCTCTTTTT TGACCTGGGG ACTTATAATT TGTCCAACTA ATTTTCTGT	5040
TAAAAGACCT TCTTTGACTT CAAGCTAGTT GGCAGTGAAA TAGGCAATAC CAAGGGATT	5100
TGCTAATCTC TCCAATATT GGTGTAATC CACCAGACAC CAGACCAACT AGGATGCCAT	5160
TCTTTTGGAG AATAGAGATG AACTCTGGGA CATTTAGCA TAGATGAAT GAGTTGAAGA	5220
CGTTATCAA GACCAAAATA GGAAGACCTT CCAACAAGGA CACTCTTTTT CTFAAATGC	5280
TTTCAAGAC CAACCTCTCT CGCATTTGCT GACTTGTAAAT CTGCGAAATT TCCGCTCAT	5340
GACCTGCTC TCTCCCTAAA AGATCAATCA CTCTTCTAG GATTAAAGTT CCATCTACAT	5400

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CCAAAACACA CAAGCCTTTT ACTTGAGACA TCAGTTCTCC TCTCTAAACA GCCTAAAAAT	5460
CGTATGAAAGT CATCATACGA TTTTATCTAT TAATTAACTA AACTATGGTA CAAGTCAAGG	5520
TATGACTTGC AGGCTGTATC CCATGAGAAG TCACTCTCCA TAGCTGTGTT TTGTAGGTTT	5580
CTCCTAAATGT CTGGATGGTT TCTATACAAG TCCAATGCTG TTTGGAAAGT CCAATTTAAC	5640
CAATAAGGAG ATAGATTGTC AAAGCTAAAG CCAGTACGTC TTCCCTTCGAT TGGATTGAAA	5700
GCAGCAACTG TATCTCGCAA GCGCTCAACT TCATGGACCA ATGGCAAGGT TCCATAACGC	5760
ATAGCCATCA TTTGAGACAA GCCACACGGT TCAAAACGAC TTGGCATGAG GAAGAGGTCA	5820
CAAGCAGCGT AGATTCTCTG AGCAAGTTTG ACATCAAAAG TGATATTGTT TGATAGCTTG	5880
TCTGGGTAAA TCTGAGCAAA CCATGAGAAA GCTCCTTCAA AGGCTTGATC GCCAGTTCCC	5940
AAAAAGACAA TCTGAACATC TTCTTGCAAG ATATGGTGAA GACTTTCTGAC CACCACATCA	6000
AAACCTTTTTC GACGTGTCAA ACGAGAAACA ATTCCCACCA GTGGAAAGTC TGCTCTAACA	6060
GGCAAGCCAA CTCCTTCTTG CAATTTTGCC TTAATTTTGG TTCTCCGAGA CAATCTTCC	6120
TGATTGAAAT GATAGTCTAA AAGAGCATCC GTCTGAGGAT TATAAAGATC AGCATCAATC	6180
CCATTCACTA TACCAGATAC TTACACGAGC TCCATTITAA GAATCTGATC CAAATTACAT	6240
CCAAACTGAC TAGTCATAAT TTCTATGAGC TAGCTAGGTG AAACGGTTGA AACACGGTTC	6300
GCATAGAGAA TACCTGCGCT CATCCAGTTC AGACAGTTGT TCCATCGAAG GGTGCCATCA	6360
GCCTAACGTT CAAAGCCAAC TCCAAACAAA TCACCAACA TCTCTCTGA AAATTGTCTT	6420
TGGAATTTCTA AATTATGAAT GGTAAAACT GTTTCAAATG CCTCATAGGC TTGAATCCAA	6480
CGTATTTTTC CCTTCAACAA GAAAGGAATC ATAGCTGTAT GGTAGTCATG AACATGGAGA	6540
AGATCAGGAA TAAAGTCAAT CCTTTCATA GCGTCAATG CAGCCAGTTG GAAAAAGGCA	6600
AAGCGTTCTC CGTCATCAAA ATCACCGTAA ACATGACCAC GGAAGAAATA ATATTGATTG	6660
TCAATAAAGT AGAAGGTTAC ACCATTTAAT ACTGTTTTCT TAAATCCACA ATACTGTCTG	6720
CGCCAACCAA CGCTCACTC AAAATGAAGC ACATCTTCAA TCTGATTTCC AAATTTAGCC	6780
TCTACCATAT CATATAGGG TAAAACTACT GCAACTTCGT GCCAGCTTT TACCAGTGAT	6840
TTTGGAGAGG CGCCATGAC GTCTCCCAA CCACTGTGTT TTGAAAAGGG TGCACCCCTT	6900
GCTGTACAAA ATAAATTTT CATGAATGAA TATGCTCTGT TACTTTAGCA CCTTTCCTAA	6960
CCCAACTGG ATGTTCTGCA GTTCTTCGAA TCACAACACC ATGCTCAACT TCAACCCCTT	7020
TGTCCAGAT AGCATATTGG ACCTGAGCCC CTCTTCCAAT AACACACGA GGAAGAGCA	7080
GGCTATCTTT AACCAAGCTA TCTTATGGA CATGAATATT ACCTGATAGA ACAGAAATTAG	7140
CTACTTGACC TTCAATAATA CTACCAGAGG CAAACTGAGA AGTGTCTACC TTAGATGTAT	7200

TAGCATAGTA AGTGGCTCT TCGTTTTGA CCTTTGTATA AATCTTTTGG TTTGGTGAGA	7260
AAGAGAAATA GAA'TTTTGT GATTCAAGCA TATCGATATT CGCTTGATAA TAAGATTTAA	7320
CAGAGTGAAT ATTGGCTAGA TAGCCCGTGT ACTCGTAGGC GAAAGCTCCC TCTTTTACAG	7380
CCAAATCCCG TAAAACATAG CGCAATTCT CTGGATGTTC TTTTTFAGCT TCTTCTTCCA	7440
AGTGTCTCAAT CAACCAAGGT GTATCAACGA CAAAGATATC TGTAGACATA TTGAACGTTT	7500
CAGCTGTTGA CTTCGTATCA AAGAGTTTAT GAGAAAGAAC ATGGCTGTGT TCATCTACAT	7560
CCAGAGTTGC ATTTACTTCT GAAATATCTT TCTTAGCTAG TTTTATTATAA ACTACAGTGA	7620
TAGGCTCTTT TGTGTACTA TGTAGGTGGA AAACCTGGTT CAAATCAATG TTAATAAGAA	7680
CATCGCAGTT GAGGGCAACC GTTTGGTTTG AGCCAGAAACG TTTCAAATAA GTAGAAGCT	7740
GTTGGTAGTA TTTCTTTCCA ACTGTACTAC TTTCTACACG GGTATTGTAA ATTCCTAGAT	7800
AGTAATGGCT AAGAAGGGTT GATAAGCCCC ACTCGCGTCC TGAACGAATA TGGTCAARTA	7860
CTAGCTGAT ATTTATCTGC TGGAAAATAC CAAAGACACT ACGAACACCT GCATTAGCAA	7920
GGCTTGAAGT TGGGAAGTCA ATCAACAGAT ATTTCCACAC AATTGGCAAA CTTCCTACTG	7980
GACGGTGGTC CGTCAATGTC GACATATTGT GAAAAACAAC TGTATTTCCT AAAATGGCAG	8040
AATATTTATC AATCTTCATC TGTGTCTACC CCCACTACTT CATTATATCC TACAACCTGT	8100
ACTTCAATCT TTCCATCAAT TTCGACACCG TCAGAAATAA TCGCACCTTC ACCAATAATG	8160
GCACGTTTAA TCTTAGCTCC TTGACCAATG ATAGCTCCAC TCATGATAAC TGAATCAAGG	8220
ACTCCGCTC CTTCGCGAAC TTGCGGCGCT GTTGAAAGGA TAGAATGTTT AACAGTTCCA	8280
TCACGCAAAC ATCCGTCTAC AACTAATGAG TCTTCCACAT GAGCATTTGC CCGAGGAG	8340
TTTGGTGGTG AAATCAAGTT TCTTGAGTAA ATCTTCCATT GACGGTTAGC ACTATCCAAG	8400
GCATTTTCTG GAGAAATATA CTCCATGTTT GC'TTCCCAA GTGACTCAAT AGTACCAACA	8460
TCTTTTCCAT AACCACATAA TTGTAAGCA TAAACACTTT CACCTGACTC AAGGTAAATT	8520
GGATGACAT TTTTACCAA GTCTGACATG CCAACCTTGC TCTTTTCAGC AGCGACTAAC	8580
ATATTACGAA GGCGTTGCCA ATCAAAAATG TAGATTCCCA TAGAAGCTTT TGTAGATTTA	8640
GGTTGAGCTG GTTTTCTTTC AATTCACAA ATACGATGTG TAGCATCTGT GTTCATGATA	8700
CCAAACGCGC TTGCTTCTTT AAGAGGGACG TCTAAACCTG CTACTGTCAA GCTGGCATTA	8760
TTATCTTATG GAGACTGGAG CATATCATCA TAGTCCATTT TGTAGATGTG ATCCCCAGAC	8820
AAAATCAAGA CATACTCAGG ATTGACACTG TCGATATAGT CGATATTTTG GTAATATAGC	8880
TGACTAGTCC CCTCAAACCA ACGATTTCCT TCACTTGCGAG AATAAGGTTG AAGAAATAGAG	8940

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ACACCTGAAT TAATACCGTC TAGTCCCCAG CTTGAACCAT TCCCAATATG GTTGTTGAGA	9000
GCAGTGGTT GATACTGTGT AACGACCCCA ACATTGTGAA TCCCTGAGTT GGCACAGTTT	9060
GATAGGGCAA AGTCAATGAT ACGGTAGCGC CCACCAATTT GCACAGCTGG TTTTGCATG	9120
CTTTGAGTGA GTTTACCGAG ACGAGTTCTT TGCCCAACCG CAAGAATCAA AGCTAACATT	9180
TCATTTTCCA TTTCTACTC CTTTTTGGTT TTTATTTGTG ACGGTTTAG TAGATTTCAA	9240
GCAGCGTTTG ATTTTCCATA CACTTGCTCC CATAGCCGGT AGGGTAAAGG TTAAGGCTTG	9300
CTCATATCTT TTCCATAGTC CTTCTTGGT TTGAACAGTT TGATTATGTT CTTTCCAAAC	9360
GCCTCCCCAC TCTTCCAAC TACTTCTCG TAAATCTCG CAACGGGTAG	9420
TCCGATTGTA AATCTTTCC GCTCAACAGG TACCATATTA AAGATACAGA CTAACATTTT	9480
TCCCTTTTTA CCCTTACGAA TAAAGGAAAG AACACTCTGG TCTCGATTAT CCGCATCAAT	9540
GATTTCAMTA CCATCATAGC TGGTATCAAT TTCCACAGA CAGCGATGAT CTTTGTAAAA	9600
CTGGTTTAGC TGAGAAAGCA AATACTTCAT CTTAGCATTC ATTTGGTCTT CTAGGTTAGA	9660
CCATTCCAAC TGTTCTTCAG ATTTCCATTC TAGGAATTGA CCGTATTGCG TACCCATGAA	9720
GAGCAATTTT TTACCAAGGT GACAAATTG GTACGTATAG AGATTGCGCA AGCCTGCGAA	9780
TTGATTGTAA CGATCTCCCC ACATCTTATG CATCATACTC TTCTTGCCAT GAACCACTTC	9840
ATCGTGGAG AATGGCAAGA GATAAATCTC CTTGAAACA TACATAAAGC TGAAGTCAAC	9900
CAGGTTAAAG TCATATTIAC GATAGATCGG ATCTTCTCG TAGAAACGGA GGATATCATT	9960
CATCCAGCCC ATGTTCATT TGTAGTCAA TCCTAGACCA CCAATCTCTT TCATTCCCGT	10020
AATCTTGATC GCAGACGAAC TTTCTCTGCG AATCATCATC ACATCTGGAT ATTCTAACTT	10080
AATTAACCTCA TTCAAGCGCT GAAGGAAATA ATAACCTTCA TAGTTGAGAT TTCCGCCATC	10140
TTTATTAGGT GTCCATGGAG CATCATATA GTCCAAATAG AGCATGTTGC TAACAGCATC	10200
CACAGCAATA CCATCCAAAT GATAGACATC AATCCAATGC TTAATGCAAG AATTAAGAA	10260
GGACTGGACT TCATTTTTTC CAAGGTCAA ATTAAGGGCA CCCCACCAT GOTTATGAGC	10320
CTTATTATGG TCTTGTATT CAAAGTCCG TGTCCATCA TAATAGGCTA AGGCATCATC	10380
GTTGATGCTA AAGTGACTGG TACCCAGTCC ACAATAACCC CAATATTATG GGTATGACAC	10440
TCCTCGACAA AATCTTGAA CTCCTCTGGT CGGCCATAAG CATGCTTAA AGCGAAGTAA	10500
CCCATTAAGT GATACCCCA ACTCAAGCCC AAAGGATGG ACATCAAGGG CATAACTCA	10560
ATATGAGTAT AGTTCAATTC AACGAGATAA GGAATGAGTT CATCTTGAG CTGGGCAAAA	10620
CTATAAGGAC TGCCATCAGA ATTTCTTTTC CATGATCCAG CGTGAACCTTC ATAAATATTG	10680
ACAGGACGCT CTTCAAGGCC CCAACGTTT CTTGCTGCCA GCCAAGTCC ATCCTTCCAT	10740

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TTCTTCTCAG GAAGTCTGT TACGATTGCC CCGTTCTCTG GACGAGCCTC ATACCTGACA	10800
GCAAAAGGT CAATCTTCAT CAGTTGATGA CCATTTTGAC GTGTGACATG ATATTGTGAA	10860
ATATGCCCTT CTTGACCAT ATTGGTAAG ACTTCCAGA CCCCAAAATC ATTTCTTACC	10920
ATTGGAATCT GATTTTCAAT CCAAGTGGTA AAATCACCA CCAAGTGAAC AGCCTGAGCA	10980
TTAGGTGCC AAACACGSA GGTATAGCCA TGCTCTCCAT TTAGTCTTTC CCTATGTGCT	11040
CCTAGATAAT GTTGGAGATA AAAATTTTCA CCGTCATAA AGGTTTTTAA TGCTTCTCTA	11100
TTATCCATAT ACTCCCCTTC TCGTGAAGC GTTTTCTATG TTTTATATAT ACTACCTTTT	11160
TAGAGAAGAT TCAAGTAAAT TACTATACTT CTTTAATAT TTTGAAAATC TACAACAAGT	11220
TCACCTTACT GTTCAATTGT AAATCAATAT TTTTTCARAA AATTGCGAAA ACGCCCTTCT	11280
TTTTCTACTA TAGTGAATG AAATAAAACA TGCGCAAATC GATTAAAGAA TTTAATCTAA	11340
TTTCTAACAA TGCTTAGAA ATCAAAAGTGT ACTATTTTAA CTC	11384

(2) INFORMATION FOR SEQ ID NO: 46:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 7577 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 46:

TGTTGATTGG TTACTAGACG TTGACCAACG TCCTTCGGCT GGAAAAGGAA TTCTCCTTAG	60
TTTCCAACAC GTTTTCGCCA TGTTTGGTGC GACCATCTTG GTACCATTGA TTTTGGGAAT	120
GCTGTATCT GTTGCCCTTT TTGCTTCAGG TGTGGGAACA CTCATCTACA TGATTGCTAC	180
TGGTTTTAAA GTTCCAGTTT ATCTAGGTTT TTCATTTGCC TTTATCACAG CTATGTCACT	240
GGCTATGAAG GAAATGGGGG GGGATGTATC TGCTGCCCAA ACAGGGGTTA TCTTGACTGG	300
TTTGGTCTAT GTCTTGTG CTACAGCAT CCGATTTGTA GGAACAAAAT GGATTGATAA	360
ACTCTTGCCA CCAATCATTA TCGGTCTTAT GATCATGTT ATCGGTCTTG GACTTGCAAG	420
TTACGCTGTT ACCAATGCAG CTCTTTGTAG AGACGGAAT TGGAAAAATG CTCTGGTAGC	480
CGTTGTACT TTCTTAATTG CTGCCCTTAT CAATACAAAA GGAAAAAGCT TCCTACGAAT	540
CATTCCATCT CTCTTGCCA TTATCGGTGG TTACCTTTTC GCACTAACTC TTGGCTTGGT	600
TGACTTTACA CCAGTCTTTA AAGCCAACG GTTCGAAAT CTGCTTTCT ACTTGCCATT	660
TAGCACAGG GTGCTCTTA AAGATACAA TCTTTACTTT GTTCCAGAAG CCATCGCTAT	720

424		
CTTGCCAAATC GCTATCGTAA CAATTTCTGA ACATATCGGA GACCATACATG TTTTGGCTCA	780	
AATCTGTGGT CCTCAATTCCT TAAAGAAACC AGGTCTTCAC CGTACTCTTC TTGGTGACGG	840	
TATCGCAACT TCTGTTTCTG CCTTCCTTGG TGGACCAGCC AATACAACCTT ACGGAGAAAA	900	
TACAGGGGTT ATCGGTATGA CTCGTATCGC TCTGTCTCA GTTATCCGTA ACGCTGCCTT	960	
CATCGCGATT GCCCTCAGCT TCCCTGGTAA ATTCACATGCC TTGATTTCAA CTAATCCAAA	1020	
CGCTGTACTT GGTGGTATGT CAATCCCTCT CTAATGGGGT ATCGCCAGCA ATGCTTTGAA	1080	
AGCTCTGATT AAAGAACGTG TTGATTTCCG TCAAAATGCA AACCTCATCA TCGCAAGTGC	1140	
TATGTTGGTT CTTGGACTTG GAGGAGCTAT CCTTAAACTT GGTCCAGTTA CACTTTCAGG	1200	
TACTGCCCTT TCAGCCATGA CAGGAATCAT CTTGAACCTG ATCTTGCCAT ACGAAAATAA	1260	
AGACTAAGAG TCTAAATACA CCTAATCCAC TCAGACAGCT GAGTGGAATT TTGCTATACC	1320	
ATAATAAAG TGCTTTAACA AAATTTATTA AATCAAAAA CGTATAATAT CAGATATTCT	1380	
AAACCTTGA TACTGTACGT TTTATCATAG AAATTTTAC TTTATTTCT CATCAAAATGA	1440	
GATTTGCATC AATCTCTTGT CTTACTTGC G TTTCTTCTC GCTTCTTCA TTTTGTTAGC	1500	
CATACGTTTC ATGGACTGTT TCATGGCAAA TTCACCAATT TTACCTTTCA AACCGCCACC	1560	
AAACATCTGG CTCATATCTG GCATTCCTGC TCCTCCGAGA GCTGATAAGT CAGGCATACC	1620	
GCCTTGTCCC ATCATTCCTT CAAGGGCAGA CATATCCATT CTCCTCCATAT TTGGCATATT	1680	
TTTAGGAAGG TTATTTGGAT TAAATCCCAT TTGCTTCATC ATTTTATTCA TATCCCCAGA	1740	
CATAACACCC TGCAATGAGCT GTTTAGCCTG GTTAAAGTCC TTGATGAANT TATTGACTTC	1800	
GACGAATGTA TTTCCAGAAC CAGCAGCAAT ACGACGGCGA CGGCTTGGAT TTAACAAATC	1860	
TGGGTTTACA CGCTCTTCAG GTGTCACTGA AGACACAATG GCACGTTTAC GAGCAATCTG	1920	
GCCTTCATCC ACCTTCATGT TTTGAAGGGC TGGATTGTTG GCCATACCTG GAATCATCTT	1980	
GAGCAAGTCT TCCATCGGCC CCATATTTTG CACCTGATCT AATTGATCGA TGAATCATTT	2040	
AAAATCAAG GTGTTTTTCG GCATCTTCTC AGCCATTTCA AGGGCTTTT GTTCATCGTA	2100	
TTCTTGAGAA GCTTCTCAA TCAAGGTGAG CATATCCCC ATACCAAGGA TACGGCTAGA	2160	
CATCGGCTCT GGGTGAAGG TTTCAATGTC CGTAACTTTT TCACCTGTAC CAGTGAACCT	2220	
GATTTGGTTT CCAGTAATGT GACGAACAGA CAGACGAGCA CCACCACGAG TATCGGCATC	2280	
AATCTTGGTA AGGATGACCC CAGTCACTTC CAACTGAGCA TTAACCTCAC GCGCAACATT	2340	
GGCTGCTTCC TGACCAATCA TAGCATCAAC GACAAGCAAG ATTTTCATTG GTTGAGCCAA	2400	
TGCTTTTACA TCACGAAGCT CATTCATGAG GAGCTCATCA ATCTGCAAAC GACCCGCACT	2460	
ATCAATCAAG ACATAGTCTG TATGATTAGT TTGGGCTTGC TCCAAACCTT GACGTACAA	2520	

CTCAACAGCT	GTTACTCTG	TTCCAAGTGC	AAGACAGGC	ACATCAATCT	GTTGTCCCAA	2580
GGTCTTAAGC	TGGTCAATGG	CAGCTGAGC	ATAAATATCC	GCCGCAATCA	TCAAAGGACG	2640
AGCATTTCCT	TCTTCTTGA	GTTTGTGGC	CAATTACCA	GCAAAGGTTG	TTTTACCAGC	2700
CCCTTGTAAA	CCAACATCA	TGATGATGGT	TGGAATCTTA	GGTGACTTGA	TAATTTCTGC	2760
CGIATCAGAA	CCTAAAACGG	CTGTCAATTC	CTCATCAAGC	ATTTTAATAA	TCTGTGCGC	2820
AGGATTAAAT	GTATCAATGA	CCTCATGCC	GACTGCACGC	TCACGAACCT	TCTTGATAAA	2880
GTCTTTTACA	ACAGGCAAGG	CAACGTGCGC	CTCGAGCAAG	GCCAAAGCAA	TTTCTTTGGT	2940
TGCTCTTGG	ACATCAGATT	CAGAGATTTT	TCCTTTTTTA	COTAGATTTT	TAAAGACGTT	3000
CTGCAAAAGT	TCTGTAAAC	TTTCAAATGC	CATTTTTCTT	CCTCTTATTC	TCTATATCA	3060
ATGCTTGTTA	AAATTTCTAT	CTGCTCCTGC	AGAAAGTCAT	CCTTGGGATA	GCCTCCAAA	3120
ATCTGATCAA	AAATCTGACT	GCGACAATA	TAGTCGAGT	ACATGTGCAA	TTTCACTCA	3180
TAATCTTCCA	GAATCTTTTC	TGTTGCGCTG	ATATGTTCAT	AGACAACCTG	ACGACTGACA	3240
CCGAATCTCT	CGGCAATTTT	AGCAAGGCTG	TAATCATCAG	COTAGTAGAG	CTCGATATAA	3300
TTCAATTTGCT	TATCTGTCAA	AAGCGCGCA	TAAAAATCA	AGAGCGCATT	CATACGATTG	3360
GTTTTTTTGA	TTTCCATAAC	TTTTATTATA	CCAAAAATTA	GCCTAATCTA	CCACACTAGG	3420
AAGCCGATCC	AAGAAGATAG	ATAGCTAAAT	TTGAAAAAGA	CATGAGCCTA	GCCCCAAGTA	3480
ATTTCCAATT	GATAGCTGGC	AAAGGGATGT	CCCTCTTGAT	TTTGTAGTTG	ATAATCTAGT	3540
TCAATCTTTT	GCCTATCAAC	TTGATAATGG	CTCGTTTGGG	TGATAAACTC	CTGCATGCCC	3600
ATAGGTGTAG	GAATATAGGC	TAACTATCG	CTATCTTTTA	GAAAGCGCAT	AATGTCTTTG	3660
GGATTAGAAA	ATCGGCTCAT	CACAAGTTCT	TGACCATGAA	ATTTAATCAC	TACTTTTTCC	3720
TTTTCTCAT	TATAGAAAAA	CAGGTAGCTA	TAMTCTCCTT	TTTCATGCAC	TTCCACATCA	3780
TAAAGCTGGT	CAATCACTTC	CAACTGCTCA	TCAAACGTAA	TCGTATTTTG	CATCCGAATC	3840
TTCACATCAG	GCCCTCTTTC	TTGTCTCTTG	TCCTACTATT	TTACCAAAAA	GAGCAAGATT	3900
TTGTATAAAT	GGTCATATGA	ACGAAAAAGT	ATTCCTGAC	CCTGTTTACA	ACTACATCCA	3960
TGTCAATAAT	CAAAATCATCT	ATGACTTTGAT	TAATACAAAA	GAATTTACAG	GTTTGGGCGG	4020
GATCAAAACAA	CTGGGAACCT	CCAGTTATAC	CTTCCACGGT	GGAGAACACA	GTGCTTCTC	4080
TCACTGTCTA	GGAGTCTATG	AAATGTCACG	ACGCATCACA	GAGATTTTTC	AAGAAAAATA	4140
TCCTGAGGAA	TGGAATCCTG	CCGAGTCTCT	CTTGACCATG	ACCCTGCTC	TCCTACACGA	4200
CCTTGCGCACT	GGTGCCTACT	CCCATACCTT	TGAACATCTC	TTTGATACAG	ACCATGAAGC	4260

CATTACTCAG	GAGATTATTC	AAATCCTGA	GACAGAGATT	CACCAAGTCC	TGCTACAAGT	4320
GGCACCCTGAT	TTCCCAGAAA	AGGTGGCCAG	TGTCATTGAC	CATACCTATC	CTAATAAGCA	4380
GGTCGTGCAG	CTCATTTCTA	GTCCAGATTGA	CGCAGATCGC	ATGGACTATC	TCTTGGCGCA	4440
CTCCTATTTT	ACAGAGACAT	CCTATGGGGA	ATTTGACCTG	ACTCGAATCC	TCCGAGTCAT	4500
TGTCCTATTC	GAATAAGTA	TCGCCTTTCA	CGCAATGGC	ATGCACGCCA	TGCAAGACTA	4560
CGTCCTCAGT	CGCTACCAGA	TGTACATGCA	GGTTTATTTT	CACCCGCGAA	CACGCGCCAT	4620
GGAACTTCTC	CTACAGAATC	TTCTCAAACG	CGCCAAGGAA	CTCTATCCTG	AGGACAAGGA	4680
TTTCTTTTGC	GGAATTTCTC	CACACCTCCT	GCCTTTCTTC	GAATAAATG	TGACCTTGAC	4740
TGACTATCTG	GCTCTGGATG	ATGGCGTGAT	GAATACCTAC	TTCCAGCTTT	GGATGACCAG	4800
TCTTGACAAG	ATTCTTGCGA	ATTTATCGCA	TGCTTTTGTC	AACCGCAAGG	TCTTTAAATC	4860
CATTACCTTT	TCACAAGAG	ACCAAGATCA	ACTTACTAGC	ATGAGAAAT	TGGTTGAGGA	4920
TATCGGCTTT	GATCCCGACT	ACTACACTGC	CATTCTAAG	AACCTTGACC	TCCCTTATGA	4980
TATCTATCGT	CCGGAATCTG	AAAACCCACG	GACACAGATT	GAGATTTTAC	AAAAAATGG	5040
AGAAGTCGCC	GAACTCTCTA	GCCTGTCTCC	TATCGTCCAA	TCCCTTGCTG	GCAGTCGCCA	5100
CGGAGATAAT	CGCTTTTATT	TTCCAAAAGA	AATGTTGGAC	CAAAAACGCA	TCTTTGCAAG	5160
CATTACCCAG	CAATTTTATC	ACTTGATTGA	GAACGATCAT	TTTACCCCAA	ATAAAACTA	5220
GAAGAGGAAA	TTTATGAGTA	TTAAACTAAT	TGCCGTTGAT	ATCGACGGAA	CCCTTGTCAA	5280
CAGCCAAAAG	GAAATCACTC	CTGAAGTTTT	TTCTGCCATC	CAAGATGCCA	ANGAAGCTGG	5340
TGTCAAAGTC	GTGATTGCAA	CTGGCCGCCC	TATCGCAGGC	GTTGCCAAAC	TTCTAGACGA	5400
CTTGCAAGTTG	AGAGACGAGG	GGGACTATGT	GGTAACCTTC	AACGCTGCCC	TGTGCCAAGA	5460
AACCTGCTACA	GGACATGAGA	TTATCAGCGA	ATCCTTGACT	TATGAGGATT	ATCTAGATAT	5520
GGAAATCTCTC	AGTCGCAAGC	TCGGTGTCCA	CATGCATGCC	ATTACCAAGG	ACGGTATCTA	5580
TACTGCAAAAT	CGCAATATCG	GAATAATACAC	TGTACACGAA	TCAACCCCTG	TCAGCATGCC	5640
TATCTCTACAC	CGTACCCCTG	AAGAATAGGC	TGGCAAAGAA	ATTGTTAAAT	GTATGTTTAT	5700
CGATGAACCA	GAATTTCTCG	ATGCTGCGAT	TGAAAAAATT	CCAGCAGATT	TTTACGAGCG	5760
CTACTCCATC	AACAATCTCG	CTCCTTTCTA	CCTCGAATCT	CTTAAAAAGA	ATGTAGACAA	5820
GGGTTCAAGC	ATTACTCACT	TGGCTGAAAA	ACTCGGATTG	ACCAAAGATG	AAACCATGTC	5880
AATCGGTGAT	GAAGAAAATG	ACCGTGCCAT	GCTGGAAGTC	GTTGGAATCC	CCGTTGTCAAT	5940
GGAAAAATGA	AATCCAGAAA	TCAAAAAAAT	CGCCAAATAC	ATTACCAAAA	CAAATGACGA	6000
ATCCGGGGTT	GCCCATGCCA	TCCGAACATG	GGTACTGTAA	AAGTATCATT	TTTCAATAAG	6060

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AATTGATTAG CAATAAAATC CAATGAATTT TTTTAGCAAA CTATTTAAAT TAAACAAAA 6120
 TAATCATAAT AGAGACACAA ATTCTGATPG TAACAATTTT TACCTAAACG AATTAGAATG 6180
 TGGCCTTACT CCGGGCAAC TCATACCTCAT AGATTGGACT CAAAAACAG GGAGAAATTA 6240
 TAATTTCCCA AGATATTTTA AATACTCTCT TCAAAATGAC CCTGAATCTA CACACAATCA 6300
 ATTATACAAA TTAGGATACT TCATAAAAA TAAGACTTTA TCATATCTTA CAGTAGTAGA 6360
 ATTAATAAAT ATATATCTA AACATAATTT AGCTACTTCT GGAAAAAAG CAGAATTAAT 6420
 TACAAGAATA ATTAATAATG TTAACATTGA CAATTTAGAT ATTCCGTTG AATTTAAACT 6480
 AACAAAAGAA GCACAAATC TTATTATCGA ACATAGTGAC TATATCAAG CATACATGA 6540
 TAAAGACATA ACTATGGAAG ATTAATTGTAA AGAAAAAAC AATATCTCTT TTAAGCAAC 6600
 TTTTGGTAT ATAAATGGA GTCTCTTAAA TAAACAAGCT CATAGGAATA CTGTATCAGG 6660
 AGATTTTGGT TGCTTATCTA ACACACGAAA GGCTCAGGGA AGACATTTGG AACAGAAGG 6720
 TAATATTAAA CATGCTTTAA TATAATTACAT AGAATCTTTG ATAATTACTA TTTCAGGAT 6780
 AGAAAAAAT TTTTCAGCCA CTGATTATCC AGTATATTAT CCCGATTGCA TACCTGACTA 6840
 CTCACATAAA CATATTCAAA CATTAAATGGA ATCATTATCT GATGACGAT ATGATTTTGC 6900
 TTTTGATGAA GCATTATTC GCTTCTCAAT TTTGAATGCA AATCATTTTT TATCTAAGGA 6960
 AGATATTGAC TATTTAAGAG TTAATTATCC TCGTTCCACT GCTGAAGAAA TAAACAATTA 7020
 CTTAAGAAA TATGAATGTT ATAGTCTTT AAATAATTTA GAACTTGACG ATTTTGAATA 7080
 AATTGACTAT ACAACAATTT ATACTCTGA TATAGTCTCA ATTTTATCTG ATGATTGCC 7140
 AAATTTTCA ATAATAAALC GCATAATATT ATGGAGACAA TCCCTATAT TATGCGTCT 7200
 TTTAATATCA AAGACTTTT GACAACTTC TTTGNTATCT AATTACATGC CCCCTGACG 7260
 AATCGAACCT GCAACTACTC CTTAGAGGG AGTGTGTATA TCCATTGAAC TAAGGGAGCT 7320
 AGATAAAAA TCIGCTAAAT GAGCAGAGTT TTTTAGTGA ATTAACGACG GATTTCCTTG 7380
 ATACGAGCTG CTTTACCTG AAGAGCAGC AAGTAGTACA ATTTCCGACG ACGTACTTTA 7440
 CCGTAACGAA CAACTTCGAT TTTTCAACA CGTGGAGTG GATTGGGAA GATACGCTCA 7500
 ACACCTACAC CGTTAGAGAT TTTACGAAT GTGTAGTTTT CTGAGATTCC AGCACCTTTA 7560
 CGTGCATATA CAACAG 7577

(2) INFORMATION FOR SEQ ID NO: 47:

- (1) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 4945 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 47:

CCTCGCTGAT GATTGGTGCT GTTTTATTTC	CTGGTCCAGC CTGGCTGAA GAAACTGCAG	60
TTCTCTGAAA TAGGGGnCT AATACAGAGC	TTGTTTCAGG AGAGAGTGAG CATTGACCA	120
ATGAAGCTGA TAAGCAGAAAT GAAGGGGAAC	ATGCTAGAGA AAACAAGCTA GAAAAGGCG	180
AAAGGAGTAG GATAGCATCT GAAACTGCTT	CGCCAAGCAAG CAATGAACT GCAACTACTG	240
AAACTGCAGA AGCAGCTAGC GCAGCTAAAC	CAGAGGAAAA AGCAAGTGAG GTGGTTGCG	300
AAACACCATC TGCAAGAGCA AAACCTAAGT	CTGACAAAGGA AACAGAAGCA AAGCCGAG	360
CAACTAACCA AGGGGATGAG TCTAAACCAG	CAGCAGAAGC TAATAAGACT GAAAAGAG	420
TCCAGCCAGA TGTCCTTAAA AATACAGAAA	AAACATTAAA ACCAAAGGAA ATCAAAATTA	480
ATTCTTGGGA AGAATTGTTA AAATGGGAAC	CAGGTGCTCG TGAAGATGAT GCTATTAAAC	540
GCGGATCTGT TGTCCTCGCT TCACGTGCGA	CAGGTCAATT AGTCAATGAA AAAGCTAGCA	600
AGGAAGCAAA AGTTCAAGCC TTATCAAAACA	CCAAATCTAA AGCAAAAGAC CATGCTTCTG	660
TTGGTGAGAA AGAOTTCAG GCCTATGCTT	TTGACTATTG GCAATATCTA GATTCAATGG	720
TCTTCTGGGA AGGTCTCGTA CCAACTCCTG	ACGTATTGTA TGCAGGTAC CTTAACGGGG	780
TTCTGTATA CGGTCACTC TTCTTCACT	GGTCTAATAG TATTGCAGAT CAAGAAAGAT	840
TTGCTGAAGC TTTGAAGCAA GACGCAGATG	GTAGCTTCCC AATTGCCCGT AAATTGGTAG	900
ACATGGCCAA GTATTATGGC TATGATGGCT	ATTTCAATCA CCAAGAAACA ACTGGAGATT	960
TGGTTAAACC TCTTGAGAA AAGATGCGCC	AGTTTATGCT CTATAGCAAG GAATATGCTG	1020
CTAAGGTAAA CCATCCAATC AAGTATTCTT	GGTACGATGC CATGACCTAT AACTATGGAC	1080
GTATATCATCA AGATGGTTTG GGAGAAATACA	ACTACCAATT CATGCAACCA GAAGGAGATA	1140
AGGTTCCGCG AGATAACTTC TTTGCTAAT	TTAACTGGGA TAAGGCTAAA AATGATTACA	1200
CTATTGCAAC TGCCAACTGG ATTGGTCGTA	ATCCTTATGA TGTATTGCA GGTTTGGAAT	1260
TGCAACAGGG TGGTTCCTAC AAGCAAAAG	TTAAGTGGA TGACATTTTA GAAGAAAATG	1320
GGAAATGGCG CCTTCTCTT GGTTTATTTC	CCCCAGATAC CATTAAGAAT TTAGGAAAAA	1380
CTGGTGAGAA TTATCATAAA AATGAAGATA	TCTTCTTTAC AGGTTATCAA GGAGACCTTA	1440
CTGGCCAAAA ACCAGGTGAC AAAGATTGGT	ATGGTATTGC TAACCTAGTT GCGGACCGTA	1500
CGCCACCGGT AGGTAATACT TTTACTACTT	CTTTTAAATAC AGCTCATGGT AAAAAATGGT	1560
TCGTAGATGG TAAGGTTTCT AAGGATTCTG	AGTGAATTA TCGTTACAGTA TCAGGTGTTT	1620

TTCCAACATG GCGCTGGTG CAGACTTCAA CAGGGGAAAA ACTTCGTGCA GAATATGATT	1690
TTACAGATGC CTATAATGGC GGAAATTCCC TTAAATTCTC TGGTGATGTA GCCGGTAAGA	1740
CAGATCAGGA TGTGAGACTT TATTCTACTA AGTTAGAAGT AACTGAGAAG ACCAAACTTC	1800
GTGTTGCCCA CAAGGAGGA AAGGTTCTTA AAGTTTATAT GGCATTCTCT ACAACTCCAG	1860
ACTACAATTT CGATGATGCA GATGCATGGA AAGAGCTAAC CCTTTCTGAC AACTGACAAA	1920
ATGAAGAATT TGATCTTAGC TCACTAGCGG GTAAAAACCAT CTATGCAGTC AAATATTTTT	1980
TCGAGCATGA AGGTCTGTGA AAAGATTATC AGTTTAACTT AGGACAATTA ACTATCTCGG	2040
ACAATCACCA AGAGCCACAA TCGCCGACAA GCTTTTCTGT AGTGAACAAA TCTCTTAAAA	2100
ATGCCCAAGA AGCGGAAGCA GTTGTGCAAT TTAAAGGCAA CAAGGATGCA GATTTCATATG	2160
AAGTTTATGA AAAAGATGGA GACAGCTGGA AATTACTAAC TGGCTCATCT TCTACAATA	2220
TTTATCTACC AAAAGTTAGC CGCTCAGCAA GTGCTCAGGG TACAACCTCA GAACGTAAGG	2280
TTGTAGCAGT CGGTAAAAAT GGAGTTCGTT CAGAACTGTC AACCACAACT TTTGATTGGG	2340
GTATGACTGT AAAAGATACC AGCCTACCAA AACCACTAGC TGAJAATATC GTTCCAGGTG	2400
CAACAGTTAT TGATAGTACT TTCCCTAAGA CTGAAGGTGG AGAAGGTATT GAAGGTATGT	2460
TGAACGGTAC CATTACTAGC TTGTCAGATA AATGTCCTTC AGCTCAAGTG AGTGGTAGTG	2520
TGGATATTCT TTTGACCAAG CCACGTACCG TTGTTAGATG GGTCAAGGAT CATGCAAGAG	2580
CTGGTGGTGA GTCTGTTAAC GATGGCTTGA TGAACACTAA AGACTTTGAC CTTTATTATA	2640
AAGATGCAGA TGGTGAGTGG AAGCTAGCTA AGGAAGTCCG TGGTAACAAA GCACACGTGA	2700
CAGATATCAC TCTTGATAAA CCAATCACTG CTCAAGACTG GCGCTTGAAT GTTGTCACTT	2760
CTGACAATGG AACTCCATGG AAGGCTATTG GTATCTATAA CTGGAJAATG TATGAJAAGC	2820
TTGATACCTGA GAGTGTCAAT ATTCCGATGG CCAAGGCTGC AGCCCGTTCT CTAGGCAATA	2880
ACAAGGTACA AGTTGGCTTT GCAGATGTAC CGCTGGAGC AACTATTACC GTTTATGATA	2940
ATCGAAATTC TCAAACTCCG CTCGCAACCT TGAAGAGCGA AGTTGGAGCA GACCTAGCAA	3000
GTGCACCATT GGATTTGACA AATCAATCTG GTCTTCTTTA TTATCTGACC CAGTTGCCAG	3060
GCAAGGAAAT TAGTAATGTC CTAGCAATTT CCGTTCCAAA AGATGACAGA AGAATCAAGT	3120
CAGTCAGSCT AGAAACAGGA CCTAAGAAAA CAAGCTACGC CGAAGGGGAG GATTGGACCC	3180
TTAGAGGTGG TGTCTCTCGA GTTCAGTATG AAGGAGGAAC TGAGGACGAA CTCATTCCGC	3240
TAACTCACGC AGGTGTATCA GTATCAGGTT TTGATACGCA TCATAAGGGA GAACAGAATC	3300
TTACTCTCCA ATATTGGGA CAACCGTAA ATGCTAATTT GTCAGTACT GTCAGTGGCC	3360

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AAGACGAAGC	AAGTCCGAAA	ACTATTTTGG	GAATTTGAAGT	AAGTCAGGAA	CCGAAAAAAG	3420
ATTACCTAGT	TGGTGATAGC	TTAGACTTGT	CTGAAGGACG	CTTTGCAGTG	GCTTATAGCA	3480
ATGACACCAT	GGAAGAACAT	TCCTTTACTG	ATGAGGGAGT	TGAAATTTCT	GTTTACGATG	3540
CTCAAAAGAC	TGCTCGTCAA	ACCTTGACGC	TTCAATFACCA	AGGCCATGAA	GTTAGCPTTG	3600
ATGTTTGGT	ATCTCCAAAA	GCAGCATTTA	ACGATGAGTA	CCTCAAAACA	AAATTAGCAG	3660
AAGTTGAAGC	TGCTAGAAGC	AAGGTGCTCT	ATACTTTTGC	TTCAATCAGAA	GTAAGAAGAG	3720
CCTTCTTGAA	AGCAATTGAA	GCGGCCGAAC	AAGTGTGAA	AGACCATGAA	ACTAGCACCC	3780
AAGATCAAGT	CAATGACCGA	CTTAATAAAT	TGACAGAGTC	TCATAAAGCT	CTGAATGCTC	3840
AAGAGAAATT	TACGGAAGAA	AAGACAGAGC	TTGATGCTTT	AACAGGTGAG	GTTCAAGAAC	3900
TCTTGGCTGC	CAAAOCAAAC	CATCCTTCAG	GTTCGCGCTT	AGCTCGCTT	CTTGAGAAAA	3960
ACAAGGCCCT	GTTTAAAAAA	GTAGATTGGA	GTCCAGAAGA	GCTTACAACA	GCGAAACAGA	4020
GTCTAAAGA	TCTGTTGCT	TTATTGAAAG	AAGACAAGCC	AGCAGTCTTT	TCTGATAGTA	4080
AAACAGGTGT	TGAAGTACAC	TTCTCAATA	AAGAGAAGAC	TGTCATCAG	GTTTTGAAG	4140
TAGAGCGTGT	TCAAGCAAGT	GCTGAAGAGA	AGAAATACTT	TGCTGGAGAA	GATGCTCATG	4200
TCTTTGAAAT	AGAAGTTTG	GATGAAAAAG	GTCAAGATGT	TGATCTCTCT	TATGCTCTTA	4260
TTTGAAAAAT	CCCAATTGAA	AAAGATAAGA	AAGTTAAGAA	AGTATTTTTC	TTACCTGAAG	4320
GCAAGAGGCG	AGTAGAATTG	GCTTTTGAAC	AAACGGATAG	TCATGTATTC	TTTACAGCAC	4380
CTCACTTTAC	TCAATTATGCC	TTTGTTTATG	AATCTGCTGA	AAAAACCAAA	CCTGCTAAAC	4440
CAGCACCCACA	AAACACAGTC	CTTCCAAAAC	CTACTTATCA	ACCGACTCTT	GATCAACAAA	4500
AGGCTCTCAA	ATTGGAAGTT	CAAGAGGAAA	AGGTTGCCCT	TCATCTCTCA	GAGCATGAAA	4560
ATACGTAGAT	GCTAGTTGGG	GAACAACGAG	TCATCATACA	GGGACGAGAT	GGACTGTTAA	4620
GACATGTCTT	TGAAGTTGAT	GAAGACGCTC	AGCGTCGTCT	TCGTTCAACA	GAAGTCATCC	4680
AAGAAGCGAT	TCCAGAATT	GTTGAAATTG	GAACAAAAGT	AAAAACAGTA	CCAGCACTAG	4740
TAGCTACACA	GGAAGAACCA	GCTCAAAATA	CAGCAGTTAA	ATCAGAAGAA	GCAAGCAAAC	4800
AAATTGCCAA	TACAGGAACA	GCTGATGCTA	ATGAAGCCCT	AATAGCAGGC	TTAGCCAGCC	4860
TTGGTCTTGC	TAGTTTAGCC	TTGACCTTGA	GACGAAAAG	AGAAGATAAA	GATTAAATAT	4920
CGAAAAATCT	TGTGAATCT	TTCCG				4945

(2) INFORMATION FOR SEQ ID NO: 48:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 25002 base pairs
 (B) TYPE: nucleic acid

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(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 48:

GACAACTCAA GTAGCTTTT CTTATTTTGA AAAAGGAGAT CAGAGTTTAA CTATGTCAGA	60
AAATACAA TGGGGTTCGA AACTTGGITT TATTCTAGCA TCTGCTGGCT GGCCATCGGG	120
CTTGGTTCG ITTGGAAGTT TCCTACATG ACTGCTGCTA ATGGCGGTGG AGGCTTTTAA	180
CTAATCTTTC TCATTTCCAC TATTTTAAATC GGTTCCTCT TCCTGCTGGC TGAGTTTGGC	240
CTTGGCCGTA GTGCTGGCGT TTCCGCTATC AAAACCTTTG GAAACTGGG CAAGAATAAC	300
AAGTACAAC TATCGGTG GATTGGCGCC TTGCGCTCT TTATCCTCTT ATCTTTTAC	360
AGTGTATCG GAGGATGGAT TCTAGTCTAT CTAGGTATTG AGTTTGGAA ATTGTCCAA	420
CTTGGTGAA CGGTGATTA TGCTCAGTTA TTACTTTCAA TCATTTCAA TCCAGCCATT	480
GCCCTAGGAG CTCGAAGCGC CTTTATCCTA TTGAATATCT TCATTGTATC ACGTGGGGTT	540
CAAAAAGGGA TTGAAAGAGC TTCGAAAGTC ATGATGCCCC TGCTCTTTAT CGTCTTTGTT	600
TTTATCATCG GTCGCTCTCT CAGTTTGGCA AATGCCATGG AAGGGGTCTT TTAATCTCTC	660
AAACCAGACT TTTCAAACT GACTAGCACT GGTCTCTCT ATGCTCTGGG ACAATCTTTC	720
TTTGCCTCT CACTAGGGGT TACAGTCATG TTGACCTATG CTCTTACTT AGACAAGAAA	780
ACCAATCTAG TCCAGTCAGG AATCTCCTC GTAGCCATGA ATATCTCGAT ATCCATCATG	840
GCAGTCTAG CCATTTTCCA AGCTCGATCC CCTTCAATA TCCAGTCTGA AGGGGACCC	900
AGCTGCTCT TTAATGTCCT GCCTCAACTC TTGACAAGA TGCCCTTTGG AACCATTTTC	960
TACGTCTCT TCCTCTTGCT CTTCCTTTT GCGACAGTCA CTTTTCTGT CGTGATGCTG	1020
GAAATCAATG TAGACAATAT CACCAACAG GATAACAGCA AACGTGCCAA ATGGAGTGTG	1080
ATTTTAGGAA TTTTGACCTT TGTCCTTGGC ATTCTCTCAG CCCTATCTTA CGGTGTCATG	1140
CGCGATGTC ACATTTTGG TAAGACCTTC TTGACGCTA TGGACTCTT GTTTTCCAA	1200
CTCCTCATGC CATTTGGAGC TCTCTACCTT TCACTTTTAA CAGGCTATAT CTTTAAAAAG	1260
GCTCTTGCAA TGGAGGAACT CCATCTCGAT GAAAGAGCAT GGAACAAGG ACTGTTCCAA	1320
GTCTGGCTCT TCCTCTTCG TTTCTTCGTT TCGTCATTCC ATTCATCATC ATTTGTTCT	1380
TCATTGCCCA ATTTATGTAA TCAAAAAGGA CTGAGTAGT GAACTCAGGC CCTTCTTTT	1440
TATGGATGGC TAACAATCAA TTCCAAACCT TGCCCTTCCA GAGTCCAAGC TTCAACATCA	1500
CTTGGTAGGA TAAAGTGGCT GCCTTTTGA ATTGATAAT TTTTCCCGTC AACAGTTAGC	1560

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TGACCTTGAC CAGCCAAGAC ACTCAATAAG CTGTAGTCAG CTGTCTTTTC AAGTCAACT	1620
TTTCCAGTAA TTTCCACTT GTAAACTGCG AAGAAATCAT TAGATACAAG GAGAGTGGAA	1680
CGCAAAATCAT CTGCTTTAAC AGTACAGGA CGGCTATTG CTGGCTCACC AATGTTCAAG	1740
ACATCGATGG ATTTTTCAG ATGAAGTTCA CGCAAGTTGC CTTTGTTCATC CTTCGGGTCA	1800
AAGTCATAGA CGCATAGGT GGTATCGCTA GACTGCTGG TTTCAAGGAT TAAGATACCC	1860
GCCCCGATAG GTGTGATAGT CCGGCTTGGT ACATAGAAGA AATCTCCAGC CTTAACAGGG	1920
ACTTTGGTCA ACAAGTCATC CCAGTTCCTG TCCTCGATTG GCTGGCGGAG TTTCTCTTTT	1980
GACTTGGCAT TGTGACCGTA GATAATCTCT GAACCTTCAT CCGCTCCGAT AATGTACCAG	2040
CATTCTGTTT TTCCGAGTTC GCTTCAATGC TCGAGTCCAT AAGCATCGTC TGGGTGAAC	2100
TGGACACTGA CCGAGTCGTT GGCATCGAGG ATCTTGGTCA AAGTGGAAA TACAGGTCTT	2160
GGACGATGCG CAATAATTC ACGGTGTTCC GCATACAAG TAGCAAGATC TGTTCCTTCG	2220
TAAAGACCAT TGGCAACTT AGAGACTCCA TTTGGATGG CTGAGATGCC CCAATATCTT	2280
CCGATTTTTT CACTTGGGAT GTCGTAGCCA AACTCATCAC GTAGCTTGGC TCCACCCGAG	2340
ATTTTTCTCT GCATAACTGA TTGTAAAAAT AATGGTCTG ACATGTGAT CTCTGTCTG	2400
ATTTTTCTCC CTCATTATA GCAAAAAAG AGTTGGAAT GAACCTTTTT TTACATCTTA	2460
TAAAGCAGGG AGAAGATTTT ATAAAAATAG TAAACAAATG TGCTCTACCC GATGCTTGCA	2520
CCATTGCTAT AATGACATC CTGTACCAA TAGAAGACT TCTCTTGCT ACGTTTGAGA	2580
GCTTCGTTTC CTACATTATC TCGATCTACA TAGATAAAGC CATAGCGCTT ATTCATTTCC	2640
CTGTGCGCAG CTGAAACCGG ATCGATACAG CCCCAGTGC TATAACCAAG CAAGTCAACC	2700
CCGCTCTGGT AATGGCATC TCGCATGGCC TTGATCTGG CCTCTAAGTA AGTAATCGA	2760
TAGTCATCTG CTACATAACC ATCTCTCATCC GGTGTATCCA TAGCACGAG TCCATTTTCT	2820
ACGATAATAC TAAACTAAAA TCAAAAAGCA TTATATAATA GTGATATGAA ATCAACTAAA	2880
GAAGAAATCC AAACCATCAA AACACTTTTA AAAGACTCTC GTACAGCTAA ATATCATATA	2940
CGCCTTCAAA TCGTCTATA GTAAAAAGAA ATAAGAACAG TACAAATCGA TCAGACAGT	3000
CAAAATCGATT TCTAACATG TTTTAGAAGT AGGGGTGTAC TATTTCTAGT TCAATCTACT	3060
ATATTCTCTC TGTATGGCAA ATCTTATAAA GAGATTATAG AACTTTTATA GTAGTTTGAA	3120
ATAGATGTG AACAACTCTA TCAGGAAGT CAATTTAAT TATAGAAATA TTTTAGCAGA	3180
CAAGGTGTAC TGTATAGAT TCAATACACT ATAGACTGTA ATCAACAAC GATTGGCGA	3240
AATGTAAAAA AATATGAGGA GTTCGGACTC GACTCTCTCC TTCAAGAAAC ACGTGGTGGT	3300
CGTAACCATG CATATATGAC AGTTGAGGAA GAGAAAGCCT TTCTTGCCTG CCAATTTGAAG	3360

GCTACAGAGG CAGGAGAATT TGTACAAATT GATGCTTAT TTCAGGCTTA TAAAAAGGAG	3420
TTAGTTCGTT CCTACACAGG TGATGCCTTC TATCAACTGT TGAAGCGCCA TGGTTGGCGA	3480
AATATTACGC CACGTCCAGA ACATCCTAAG AAAGCAGACG CTCAAACCAT TGTTCGCTCT	3540
AAAAATAAAA TCTCAATCCA AGAAGGCAG AAAGCGTTTF AATATAGTA GAGCTTTTCG	3600
TAAGGTTTGC TTGATGTACC AAGCTGAAGC TGGTTTCGGT AGAATCAGTA AACTGGGATC	3660
TTGTTGGGCT CCAATAGGAG TAGGTCCACA TATCCATAGT CACTATATAC GAGAATTTTCG	3720
CTATTGTTAT CGAGCTGTTG ATGCCATATAC AGGCGAATCA TTTTCTTAA TAGCTGGTAG	3780
ATGTAATACT GAGTGGATGA ACGCTTTTTT AGAAGAGCTT TCACAAGCTT ATCCTTTTAC	3840
TCGTTATGGA CAATGCTATA TGGCATAAAT CAAGTACCTT AAGATTCCG ACTAATATTG	3900
GTTTTGCATT TATTCTCCA TACACACCAG AGATGAACCC CATTGAACAA GTGTGGAAG	3960
AGATTGCTAA ACGTGGATT T AAGAATAAG CCTTTCGAAT TTTGGAGAT GTCATGAATC	4020
AACTCCAGGA TGTATACAA GGATTGGAGA AGGAGGTGAT AAGTCCATC GTTAATCGGA	4080
GATGGACTAG AATGCTTTTT GAAAGCAGAT GAGTATTATA TGCAATTTCT TTATATAAAA	4140
AGACCGGATT GCTCCGATCT TCAATAGTT CATATTCTCA ATTTCTATTT TAAAAATAGC	4200
TAAGGTTTAA GTCAAAATGAC TACGCGACCT ATTTTCATACG ATAAAAATCA AGCACTAGAC	4260
CAGCAGGTCC TTGAACTAAT AAGGACTCTG TCCCCCAATC GGTTCAGTT GGTCCGTGTA	4320
AAACCTTTAT ACCAAGCTCG TTCAAACGTT TGTAGTTCTG GTCTACATCC TCAACCTCGA	4380
TATGAATAAT GATTCTGAC TGAAGTTTT CCAAAGGAAC CAAATGATTT TGTGACAACA	4440
TAAGGCAGTG ACTACCAATC GTAAACTGAG CAAACCATC ATTAGCATAA TCTGCCTTTT	4500
TATCCAAGAT ATGCTCCAAG TCAGCACAGA CTTGGGGAAC ATTTGAAACG ATAAATCTA	4560
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GAGGAATAT TTAATTGCGC GTGATTGCAA TCCTCTCTCT TCCAAGAAGA GACGGAATGG	4740
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GCTTCGATA CGGTCAACTG TGAATCCAAC AGCTCCTTGA GCTTCCGCAA TTTTAGCGTA	4980
GTCAGCGTTT GTGAAGCTA CACCAACAA GTGTTTGTGT GTATCTCGT ATTTGTTCTT	5040
GATGAAGCG TACTCAGCAT TTGAGAAGC AAGGTTGATA ACTGGAAGGT CGTATTGAAC	5100

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TTTCTATATT	CTCCTGCTCC	ACAGGCTACA	GGATCTAATA	CTGCTGGGAC	ATTATATTTC	18060
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TTTATTAATA	AACCACCAGC	ATACTTTAAC	AAATCTCTTA	AACTGCTGG	AAACTCACTC	18180
ATGGCTGGTG	AGGCGCCGAG	TGCTACTAAT	CCATTTGCTG	TGAAATTTT	TACTACATCA	18240
TTGGTTATAC	AAATGACCAA	TGGTGCTTT	TCTTTTAATA	ATTTTAAACT	TGTCATATTG	18300
AAATCCTTCC	TTTTCACTTT	ATACGATCTA	CTAATTTGCA	TTTATCTTTA	GTTGAGAATT	18360
TTTTTCAATT	ACATTTGAAT	ATTTATACTC	AATGAAAATC	AAAGACAAA	CTAGGAGGCT	18420
AACCGCAGGT	TGCTCAAAAC	ACTGTTTTGA	GTTTGTGGAT	AGAACTGACG	TGGTTTGAAG	18480
AGATTTTCGA	AGAGTCTTAC	CTCATCAAAAT	TTGTAAATAT	CATGAGCCTT	CTCTAGACAT	18540
CGTAACCAAT	ATCAAAAAA	GCTAATCTTA	AAGCGACTGC	TTGATTCCAG	CGTTGCTGAA	18600
GTTCTGTCAA	ATCTTCTCGA	TTTTTACCGA	CACGATTGAG	TTGCTCAACC	AGAAATTGAA	18660
CCCACCTGCG	AAGAAAAGGA	CCTCTGTGGA	GATTGATCCA	TTCCGAATGA	ATATAGACTT	18720
CAGGTAAAGC	CAAACTTTTA	GAACCCAGT	CTAAATAGAG	ACCTTCTGCA	ATGACCAGCA	18780
TGACCAAAAG	ATGGGCATAG	TCTGATGAAG	CCACCGCCGA	ATACATTAGA	TCCTGAAGG	18840
CTTTTGTATC	AGGCTGCAAA	GTCACCTCTA	GATAGTCATT	CTCTGCTACT	TTTAACTCTT	18900
TAAAGCCTT	TTGAAATTA	CCATCTTCAT	CTGCTTCAAG	AAAGCCTAGT	TGCTTGCCAA	18960
AACGAAGCTT	GGATTCAAGT	TTATCTGCGT	GACTACGCG	GCACCCAGCA	TGGATAAGAA	19020
GGCATCAAG	AAGTGATAAT	CTTGAATCAG	ATAGTCTTT	AAGACCTTAT	TCTCAATTGT	19080
CCCCGAAAA	AGTTCCTTAA	CAAAACGATG	ATTGATTGCA	GCCTGCCAAT	CCTTCTGACT	19140
GCTTTTTAAT	AATTTCTCAA	CAGTCAAAAC	TGGCTGAAAT	GCATAGTCTT	GTGTTTCCAT	19200
ATTTACTTCT	CCTCTCTTTA	CTTGTAGTA	ATTAATAAAA	CACCAAGAAA	TATCAAGCAA	19260

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AATCGTAATT	CCACTTGATC	CTTTTAAAGC	ACATCGAGAG	CATTTCGAGA	GAGCTAACTA	19320
AACAAGCCTA	TCCAGTTTAT	ATAAACAATA	AACTCCAATT	ACAATCAAGA	ATTAGAGTTG	19380
ACTTACAAGA	TTAGACCGTT	CATTTACCA	TACGAAAAAA	CTGTTACAT	TTCCCTTCGC	19440
CAGTCTTAAC	TGTATCAGGT	TCAATGGGT	TTATCTCAGC	CTAAAGCAC	CCAAATGTCT	19500
CTATTATTTA	ACTACTGAAC	CAGTATAGCA	AAAAATGAAA	GCCCTAGCAA	GATATTTCAG	19560
CGAAAATAT	CTTTATATAT	AATATATTGA	AACTAGAAAT	GTACACCTCT	ACTTATAAAA	19620
CATTGTTAGA	AATCGATTTG	ACTGTCCTGA	TTGATTTCCT	CTATTCTTAT	TTCAATTTTAC	19680
TATAGTTTTT	GATAGCAATT	TATTCTTCCA	ATACACGAGG	AAAAACCTCC	ACATTCAAGT	19740
GAGCAATCT	GTTTTATCAA	TACAATTTTA	AGTCACGAGG	GTCAACTGGG	AAGGTTGGGT	19800
TGTATGGATT	GTGACGGAGC	TTGAAAGTGT	TGACATCTTC	AATGGTCTGA	GTTCAGAGCA	19860
ATTGCATAAC	TGCTTCAAT	TCCGCATTCA	AGTGTCTCAA	GACTTACGCG	ACACGACAC	19920
TACCAACGAG	AGCCAGCCCA	TAGATGACAG	GGCGTCCAAT	AGCAACCAAG	TCTGTCTCTG	19980
ATGCCAAGGC	TTTAAAGAGC	TGTTGACCAC	GACGAACACC	AGAGTCAAA	ACAATCGGCA	20040
CACGCTATAC	AACTGCTTCT	GCCACTTCTT	GAAGCGAGTC	AAAGCGAGCT	GOTCCACCGT	20100
CGATTTGAGC	ACCACCGTGG	TTGGTTACCC	AGATACCAGA	AGCTCTTGCA	GCAAGCGAAC	20160
GTTCACAGTC	CTCACGGCAT	TGTGGTCCCT	TGACATACAC	AGGAAGACCA	GAGTATTCAG	20220
CGATAAATTC	TACATCGCGT	GGAGACAAGC	GTTGTTTACG	TGATTTGTAA	ACAAAGTCCA	20280
TTGATTTTAC	AGCACCTTCT	GGCAGGTATT	CTTCAACAA	CGGCATGCCA	ACTGGGAAGA	20340
CAAAACCAAT	ACGCTTATCC	ACTTCACGAT	TCCCCCTTAC	AGTAGCATCT	GCCGTCAAGA	20400
CAATCGCTTT	ATAACCTTCA	GCTTTCACAC	GGTCCATGAT	GTGGCGGTTC	GTACCGTCAT	20460
CCITACTAAA	GTAAATTTGA	AACCAATGAG	GTGTCCTTCG	GAGGCGCTTC	GAAATCTCTG	20520
GAAGGTCAAC	AGTAGAGTAA	GAACCTGGTG	TATAAAGAGA	ACCAAACTCA	TGCACACCAC	20580
GCGCAGTCCG	CATTTCCTCC	TGTTCAATTC	CCAATTTATG	AGCCGCAACA	GGTGCCATAA	20640
TGATTGGAGA	AGATAGTTTT	TCACCTGCAA	ATTCAATCTC	TGTACTTTGA	TTTTCTACAT	20700
TGCAAGGTGT	ATGAGGAACG	ATGAGCTTGT	GGTTAAAGGC	ACGGATATTC	TCTCTTAAAG	20760
TGAAAGTATC	TTCCGCCCCA	CTAGCAGAT	AGCCAAATGC	TGCTTTAGGA	ATAACTTGT	20820
GCGCCATTCG	CTCCAAATCA	TAGGTATTTA	TGAATCTTAC	ATGACCTTCT	GCATTTCTTC	20880
TTTTGTATGA	CATAAAATGT	CCTCCTTAAT	AAGTAAGCGT	TTACTTTCTG	TATTACAAAA	20940
ATATCTTTAC	TCTTTTTCAA	AACTTTTAAA	ATATTTTGT	TGGAATTTTC	AGAAATTTTA	21000
TGCTCATGAT	AAAAATCCTT	ATAACGCGAA	TAAAAATAG	ATATTTATCCA	AAGAAGATTT	21060

TAAGTGTCTAC	AATAACTGTA	TTATTTCTAG	ATGGGAGGTT	CTATTTTGG	ATTGATCCAT	21120
TGTTGAACAA	TATCTACCAC	TATATCAAAA	GGCATTTCTT	CTGACCTTGC	ATATTGCACT	21180
TTGGGGAATT	TTGGGATCCT	TTCTGCTCGG	TTTAATCGTT	AGTATCATCC	GACATTATCG	21240
AATCCTTGTT	TTGGGCAAG	TAGCGACAGC	CTACATTGAA	TTGTCACTGA	ATACGCCCTT	21300
TTTGATTTCAA	CTCTCTCTTC	TCTACTTCGG	TCTTCCCGCA	ATCGGATTC	TCTATCTTTC	21360
AGAAGTCTGT	GCAACGCTTG	GGCTGTCTTT	TTTAGGAGGC	TCCTATATGG	CAGATCTTTT	21420
CCGAAGTGGG	CTGGAGCCCA	TCAGTCAAAAC	CCAGCAGGAG	ATTGGCTCTG	CTATTGGTCT	21480
GACACCTCTA	CAGGTCTTTT	ACTATGTGGT	TCTTCCGCAA	GCAACAGCGG	TGGCACTCCC	21540
CTCCTTTAGT	GCCAATGTCA	TTTTCCTTAT	CAAGGAAGCC	TCTGTTTTCT	CAGCAGTGGC	21600
TTTGGCCGAC	CTCATGTACG	TGCGCAAGGA	TTTGATTGGT	CTCTACTATG	AGACAGACAT	21660
TGCGCTAGCT	ATGTTGGTAG	TTGCTTATCT	AATCATGCTG	CTACCCATCT	CACTGGTCTT	21720
TAGCTGGATA	GAAAGGAGGC	TCCGCCATGC	AGGATTCCGG	AATCCAGTGA	CTCTTTCAAAG	21780
GAAATATCTT	CCTGAGATTC	TTACAGGGAT	TGGGCTTATC	GATTTGGGATA	TCCATCCTGT	21840
CTGTCTCTTT	ATCCATGATG	TTCAGAACAG	TCATGGGAAT	CMTATGACC	TCCCATTCTA	21900
GAATCATACG	ATTTTAAACA	CGATTGTATC	TGGAATTTAT	CCGTATCATG	CCCCAGCTGG	21960
TGCTACTCTT	CATCGTTTAC	TTTGGCTTGG	CTCGAAACIT	TAATATCAAT	ATCTCAGGTG	22020
AGACTTCAGC	TATTATCGTT	TTTACCTCTT	GGGAAACAGC	TGAAATGGGA	GACTTTGGTAC	22080
GTGGAGCTAT	CACTTCTCTC	CCTAAACATC	AGTTTGAAG	TGSACAGGCA	CTCGGCTTGA	22140
CTAATGTTCA	ACTTTACTAC	CACATCATCA	TCCACAAGT	CTTAAGAAGA	CTGCTACCGC	22200
AGGCTATCAA	TCTTGTCACT	CGGATGATTA	AAACCACTTC	ATTAGTTGTT	TTGATTGGGG	22260
TTGTGGAGT	GACCAAGTT	GGACCAACAA	TCATCGATAG	CAATCGGCTG	ACCATCCCAA	22320
CTGCTTCATT	TTGGATTAT	GGAACCATTC	TATCTTATA	TTTCGCAGTT	TGCTACCCCTA	22380
TTTCCAACCT	ATCCACTCAC	TAGAAAAAAC	ATTGAGAGAA	CTAAATGTCT	GAAACTATCT	22440
TAGAANTCAA	GGAACAAAA	AAATCCTTGG	GAGACAATCC	CATCCTCCAA	GGACTTTCTC	22500
TAGAANTCAA	AAAAGGGGAA	GTGTTGTCTA	TCCTAGGGCC	ATCTGGTTGT	GGGAAAAGTA	22560
CCCTCCTTCG	TTGCTCAAC	GGCTTAGAAA	GTAATCAAGG	TGGAGATATT	CTTCTGGATG	22620
GTCAGTCTAT	CGTTGAAAA	AAAAAGATT	TTCACTAGT	TGCGCAAAAG	ATTGGCATGG	22680
TCTTTCAAAG	TTATGAACTC	TTTCCCATC	TGGATGTCTT	ACAAAACCTC	ATCTATAGCC	22740
CTATCAAAGC	TCAAGGAAGG	GACAAGAAAG	AAGTAACGGA	AGAAGCTTTG	CAATTACTAG	22800

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AGCGTGTGCG	TTTGCTGAT	AAACAACATA	GCTTTCGCCG	TCAATTATCT	GGTGGACAGA	22860
AGCAACGTGT	TGCAATTGTC	CGTGCCCTCC	TAAATGATCC	AGAAATCATC	CTTTTGTAGC	22920
AGGTGACTGC	TTGCTGGAT	CCAGAAATGG	TGCGTGAGGT	GCTGGAACTT	ATCAATGATTT	22980
TGGCCCAAGA	AGGCCGTACC	ATGATTTTAG	TAACCCACGA	AATGCAGTTT	GCCTAAGCCA	23040
TTACTGACCG	GATTATCTTC	CTCGACCAAG	GGAAAAATCG	TGAAGAAGGA	ACAGCTCAAG	23100
CTCTCTTTAC	CAATCCGCAA	ACCAAAACGAG	CCAGGAATTT	TTTAAACGTC	TTTGACTTTA	23160
GCCTAATTCG	CTCATATCTA	TAAAGGAGAT	TCTTATGAAA	CTATTCAAAC	CACCTTTTAA	23220
TGTTTTAGCA	CTTGCCCTTG	CCCTTATCTT	TATCACTGCT	TGTAGCTCAG	GTGAAACGC	23280
TGTTTATATC	TCTGGAAAAA	CAACTGCCAA	AGCTCGCACT	ATCGATGAAA	TCAAAAAAAG	23340
CGGTGAATCG	CGAATCGCCG	TGTTTGGAGA	TAAAAAACCG	TTTGGCTACG	TTGACATGA	23400
TGGTTCTTAC	CAAGGCTACG	CTACGATATT	GAATAGGGA	ACCAACTAGC	TCAAGACCTT	23460
GOTGTCAAGG	TTAAATACAT	TTCACTCGAT	GCTGCCAACC	GTGCGGATTA	CTTGATTTCA	23520
AACAAGGTAG	ATATTACTCT	TGCTAACTTT	ACAGTAACTG	ACGAACGTAA	GAATCAAGTT	23580
GATTTTGCCC	TTCCATATAT	GAAAGTTTCT	CTGGGTGTCG	TATCACTCAA	GACTGGTCTC	23640
ATTACAGACG	TCAAAACACT	TGANGGTAAA	ACCTTAATGT	TCACMAAGG	AACGACTGCT	23700
GAGACTTATTT	TTGAAAAAGAA	TCATCCAGAA	ATCAAACTCC	AAAAATACGA	CCATACAGT	23760
GACTCTTACC	AAGCTCTTCT	TGACGGACGT	GGAGATGCTT	TTTCACTGA	CAATACGGAA	23820
GTCTAGCTTT	GGGCGCTTGA	AAATAAAGGA	TTTGAAGTAG	GAATTACTTC	CCTCGGTGAT	23880
CCCGATACCA	TTGCGGCAGC	AGTTCAAAAA	GGCAACCAAG	AATTGCTAGA	CTTCATCAAT	23940
AAAGATATTG	AAAAATTAGG	CAAGGAAAAA	TTCTTCCACA	AGGCGTATGA	AAAGACACTT	24000
CACCCAACCT	ACCGTGACGC	TGCTAAAGCA	GATGACCTGG	TTGTTGAAGG	TGAAAAAGTT	24060
GATTAGTCAT	TAACCTTTAA	AAGGAACCTG	ATTTTAAGCT	CCAATCCCTT	TTTAAGATTT	24120
TACCTATAAC	ATCCTGAGTC	TATCTAAGAT	GTTCAATCTG	AACACAGTGT	ACATACTTTA	24180
TCTTCTATTG	CATATACCTT	ATCACATAAG	ATACGAATAT	CCTCTTCACT	ATGACTAGCA	24240
ATCAAAATTG	TTGTCCCTTT	TTCACTAGAG	AGCTTTCTAA	ACAAATGTTCT	CATATTTTCT	24300
ACACTTGTATT	TATCCAAGGC	ATTCATAGGT	TCATCTAGTA	AAAGAATAGA	GCGAATCTCT	24360
ATPATTTGCTT	GAGCAATCCC	TAGCTTTTTC	CTCATACCTA	GCGAATTAAGT	TTTAACTTTT	24420
TGGTCTTTTT	GCTCATATAG	ACCAACTATT	TTCACTGTAT	CATTGATTTT	CTGATTAACA	24480
ACTACTCTCT	GTATGCTTGC	CAATATTTGT	AAATCTTAA	AGCCAATATA	ATAATTTTATA	24540
AAACCAGGTT	CTTCAATCAA	AGCTUCCAAA	TTAGCTGGAA	TTTTTCTCTC	AGGAACAATA	24600

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TTTCCCCAT TGATTAACAC TTCTCCATAA GACGACTAT ATAAACCAGC TATTAAITTA	24660
AACAATAAC TTTTCCCTGA GCCATTGCA CCAGTAATTC CTATAATTTC CCCCTGTTTA	24720
CAACTAAAGT TAAGGTTTTG AAAAACACAT GTCTTTTTTA ATTCAACTC AATATTTTTT	24780
AATGTAATTA TTTCATTCT TCTATAAAC TCCTCTTTTG ACGAGTGAAA TAGAAAAATGC	24840
TTTGAAAAAG AAGACTTAAA AATAGCACT GAAGAAATAA ATCTCGTCT ATATCTCCAT	24900
TCCTCGATT CAJAATATAA AATAGATAAT TAGTTCGATT TCCTACAAAT AGACCACCAA	24960
ACACAATCAT GAGTAAAAAG AAATAACGC AAGCAAAGTT CG	25002

(2) INFORMATION FOR SEQ ID NO: 49:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 11443 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 49:

CAGGTACGGT GAGGCGCAAC TAAATATAA TTTTCATCTT GATTAGGAAT TTTATCAGTA	60
TTATGATAGT GAGCATTGCC ATGTATGSA CATAAGAGCA ATACAACATA TCCACGCAA	120
TAAGTATAAA ACATGCGATC TCCTTCGATT GTTTCTTTGT TATTATTATA CCTTATCAAA	180
GGAGGGCTGG CAAACTTTTC CCTTGACTAG ATACATATT AGGATGAAAT TAGAATTCTG	240
TTAAAAAATA TGATATAATA GAATTTATGG ATAAAAATA GATTATGGGA TTAACCCAAA	300
GAGAAATCAA GGAAGACAG GCTGAGGTT TGGTCAATGA CTTTACCGCA TCAGCCAGTA	360
CCAGCACTTG GCAATCGTT AAACGAAATG TCTTTACCT TTTTAAAGCT TTGAACTTG	420
CCAATTGCTT GGCTTTGCCC TTTGTGCAGG CTGGAGCAA TCTGGTCTTC TTTGCTGTTA	480
TCTGCTTTAA GCCTTTTCTT GGGATTGTGA CCGAGCTACG AGCCAAACAC ATGGTGGACA	540
AGCTCAATCT CATGCAAG GAAAGGTCA AAACCATCCG TGATGGTCAG GAAGTTGCTC	600
TTAATCCTGA AGAATTAGT CTAGGAGATG TCATTCGTT GTCTGCAGGA GAGCAGATTC	660
CTAGTGATGC CTTGGTTTTG GAAGGCTTG CGAAGTCAA TGAAGCCATG TTAACGGGAG	720
AAAGTGATTT GGTGCAAAAG GAAGTTGACG GCTTACTTTT GTCAGGAAGT TTCTTAGCCA	780
GTGGTCAGT TTTATCTCAA GTTCAACATG TCGTGCGA CAACTATGCT GCCAACTCA	840
TGCTTAGGCG TAAGACCGTT AAACCATCA ACTCCGAT CATGAAATCG CTGGAACAAT	900
TGGCTGTTT TACTGGGAAG ATTATCATTC CCTTGGTCT GGCTCTCTTG CTGGAAGCCT	960

TGCTTTTAAA	AGGCCGTGCT	CTCAAGTCAT	CCGTTGTAAA	CTCGTCGACA	GCTCTTTTGG	1020
GAATGTTGCC	TAAGGGAAAT	GCCCTTTTGA	CCATFACCTC	GCTCTTGACT	GCAGTGATTA	1080
AGTTGGGCTT	GAAAAGGTC	TTGGTGCAGG	AGATGTACTC	TGTTGAGACC	TTGGCGCGCG	1140
TGGATATGCT	CTGTCTGGAC	AAGACGGGTA	CCATCAACCA	AGGAAAGATG	CAGGTGGAGG	1200
CTGTTCCTCC	GTTCACGGAA	ACGTATGGTG	AGAGGCTAT	TGCCAGCATC	TTGACTAGCT	1260
ACATGGCCCA	TAGTGAGGAT	AAGAAATCCA	CTGCCCAAGC	CAATCGCCAG	CGTTTGTGG	1320
GAGATGTTGC	TTATCCATAG	ATTTCCAATC	TTCCCTTCTC	GAGCGACCGC	AAGTGGGGGG	1380
CTATGGAGTT	AGAAGGCTTG	GGGACAGTTT	TCTTAGGGGC	ACCTGAGATG	TTGCTTGATT	1440
CTGAAGTCCC	AGAAGCTAGG	GAGGCCTTGG	AGAGAGGATC	ACGTGTCTTG	GTCTTAGCTC	1500
TCAGTCAGGA	GAATTTAGAC	CATCACAAAC	CACAGAAACC	ATCTGATATT	CAGGCTCTAG	1560
CCTTGTGGA	AATCTTGGAC	CCCATTCGAG	AGGGAGCAGC	AGAGACGCTG	GACTATCTCC	1620
GTCTCAGGA	GGTGGGACTC	AAGATTATCT	CTGGTGACAA	TCCAGTTACG	GTGTCCAGCA	1680
TTGCCAGAAA	GGCTGGTTTT	GCGGACTATC	ACAGCTATGT	AGATTGCTCA	AAANTCACCG	1740
ATGAGGAATT	GATGGCCATG	GCGGAGGAGA	CAGCTATTTT	CGGACGTGTT	TCCCTCATC	1800
AAJAGAAACT	CATCATCCAA	ACGTTGAAAA	AGCGGGGACA	TACACGGCT	ATGACAGGGG	1860
ACGGGGTTAA	TGATATCTTG	GCCCTTCGTG	AGGCGGATIG	TTCTATCGTG	ATGGCGGAGG	1920
GGGATCCAGC	AACCCCTCAG	ATTGCCAATC	TGGTTCTCTT	GAACCTCAGC	TTTATGATG	1980
TTCTTGAGAT	TCTCTTCGAG	GGTGTCTCGG	TGGTCAATTA	CATTGCCAC	ATGCCCCGA	2040
TTTCTTGAT	AAAGACCATC	TATTCTTCTC	TGTTAGCAGT	CATCTGTATT	GCCAGTGCTT	2100
TACTAGTTCG	GTACAGATGG	ATTTTGATTT	TCCCTTTCAT	TCCGATCCAG	ATTACCATGA	2160
TTGACCAGTT	TGTGGAAGGT	TTCCCAACAT	TCGTTCTGAC	TTTTGAGCGA	AATATCAAAC	2220
CTGTTGAGCA	GAATTTCTCT	AGAAAAATCA	TGCTTCTGTC	CCTACCAAGC	GCTCTCATGG	2280
TCGTCCTCAG	CGTCTCTGTT	GTGAAAATGT	TTGGCGCGAG	TCAAGGTTGG	TCTGAGTTAG	2340
AAATCTCAAC	TCTACTCTAT	TATCTCTTGG	GGTCAATTGG	TTTCTTATCC	GTATTTAGAG	2400
CCTGCATGCC	ATTTACCCCTA	TGGCGTGTCC	TCTTGATTGT	TTGGTCAGTA	GGAGGTTTCC	2460
TAGCCACAGC	TCTCTTCCCA	AGAATTCAAA	AACGCTTGA	AATTTCAACC	TTACAGAAAC	2520
AAACGTTTGC	TGTTTATGGT	GTCAATGATG	TGGTCTTTAC	CGTGATTTTC	ATCCTGACCA	2580
GTGCTTACCA	AGCGAAAAAA	TAAATCAAAA	CCACCAGTGT	GAACGTGTGG	TTGTCTCTGC	2640
GGCTATAGCG	CGCTCTTACC	GGCCAGGGCC	AAAGGCCAC	CGAAATAGCT	TCTCGCGCA	2700
CCACTTTC	GAGCAGGTGC	TAAAGCACCT	TAGTACTTTC	CTCTTATTTA	TTTCGCCAGT	2760

AAACGGATCT	ACTGACTCGA	ATAACGTGAG	CTGGCTGCT	ACTCTGTCTT	CTTGTAAATTG	2820
ATTCTGAATA	TATTCAGCTA	TCACCTTCTG	ATTACGGGCT	ACGGTATCTA	CATAATAGCC	2880
TCTACACCAA	AACCTGCGAT	TGCCATATTT	GTAATTTTAA	TTCCGATGCT	TATCAAAAAAT	2940
CATCAAACTG	CTCTTGCCCT	TTAAATGAGC	CATAAAGGAC	GAAACACTAA	GTTCGCGAGG	3000
AATACTGATA	AGCATGTGAA	TATGGTCTGA	ACAAGCATTC	GCTTCATGGA	TTATTACACC	3060
CTTACGCTCA	CATAAGTCAC	GTATGATTCT	TCCGATACTA	GCTTTGTATC	TGCCATAAAT	3120
GATTGACGCA	CGATATTTGG	GTGCAAAAAAC	AATATGATAT	TTACAATTCC	ATGTGGTATG	3180
TGATAAACTT	TGATTATCCT	CTCTCATGAG	GTACCTCCTG	TATGATATGT	TGTAGTGGCG	3240
GAGAAACCA	TTCTATCTTA	TCATTTTAGG	AGGTTCTTTT	TGTTACCACG	CTAAAAGCTC	3300
TATGGAACCA	CTAGCATAGC	TAGTGGTTTT	CGGGAGACAA	CAAGAAAGAC	TGCAATCTGT	3360
GGATTGCACT	TTTTTATAGC	ATGGATCTAT	CGTAGATCTG	ATGTGCAAGG	CCTACGTGCC	3420
GATCATCTAT	CGGTGAACCC	AAGAGCGACC	CTCAAGCCTG	CTTGGATTGA	GGTAATAGAT	3480
TCAATATCTT	GTAGTTAGAC	TATTTGAAGT	TTGATGTAA	AAAGAGAAAG	CGACAGATTG	3540
AAGTAATTTT	AACCTCTCTC	TATTCCTAGA	ACAAATGGTC	GGATAGGTTG	GTAGTTTGAA	3600
AATGAAGATG	CTATCTATTG	TTAAATGGAA	CATAGTGTTA	TTTATTAGAA	AATCGTTTGG	3660
TTTATTCTTT	ATCAAAATAG	AAAAGCAACT	TAAATATTTC	AACATAAATA	GATGTTATGA	3720
AGAAAAAGTA	AAATGATTTT	GGCATAGTGA	GGTCTGTTC	TATTTGATAT	CATATTTTGG	3780
ATAAAAACAA	AAATGTCCAT	TGCAAAAGGAC	AAATGCGAA	GTATATTATT	TTTTGAAAGC	3840
GATATAATGG	ATTCTATAAG	GAGGTGTATC	GTGTCTAGAA	AACAAGAACA	AATGGAAAGC	3900
TTGTGTCTCC	TTTTGGGAGA	TAGTAAGGAT	TATATATCTG	CTAAAGTATT	GGGAGAAAAA	3960
TTAAATTCGT	CTGATAAAAC	GGTTTATCGC	CTTGTCAAGG	GAATCAACAA	AGMTGTCTCG	4020
GTAGAACGAT	TCAATTTATC	TGAAAAAGGC	AGAGTTTCA	AATTAATCC	AAGAAGTCCC	4080
CTGTGGGACG	TGATGGGAAA	TTTTTACAGAG	GCTTTTGATC	CTGAAGTAAG	CGGTGAAAAA	4140
TTACTAGAAC	GTCTCTTGTT	GACTGCTCCT	AAGCCACATT	CTATTATGA	TTTAGGAGAG	4200
GAATTCCTAG	TAAGCGAGTC	AGTAGTACTA	AAAGATCGTC	AGATATTACA	AGAGAGTCTA	4260
GCAATTTATG	GGTTAGATT	AAAAATGAGA	CAACGAAAGC	TTTTTATTGA	TGGGGATGAG	4320
GCTCAAAATC	GTTCAGCCAT	TCTAAATCTA	CTGCCAATGT	TTAATCAGTT	GGATTTAGAG	4380
CAAAATACAC	AGAAATAGGT	TCAGCCTCTT	GACGAGAAAC	TGCTCACTT	TTGTTTGGGA	4440
TTACTGATTA	CACCTGAGAG	AGAAATGGGG	GTAAACATTC	CCTATCCATA	TAATATTAAT	4500

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ATTTTCTCTC ACCGTATAT TTTTATCAGT AGGAATCTTC GTAGTACTAG TATTCAATGT	4560
GTAGCACCTT CAJAJCCTAC TATTGTTGAT GAGAAATTT ACAGTGTCTG TCJAJAJAJT	4620
ATTCAAGAAA TTGAACAATA TTTTAGGATG AAGGTTGATG CAGTTGAGAT TGACTATCTT	4680
TATCAATACG TTGTATCTTC GAGATTGCAA AAACCATTTT CTTCGGGGAA GCTTCCTTTT	4740
TCTCAGCGAG TTTTAGATGT CACTCATTAC TATTTTAGCC GTATGTGTAT GGACAATAGA	4800
GAGATTGAAA CGACAGATCC TGACTTTGTT GACTTGGCGA GTCATATCAG TCCCTTACGT	4860
AGGAGATTAG ATAATAGAGT ACAGATTAAJ AATAGTCTTT TATCACAAAT TCTTTTAAAC	4920
TATCCTAATC TGGTTAAJGA GTTAACTACT ATTTCTAAGG AAGTGAGTCT AGTATTGGT	4980
TTTGCTTCCT TGAATCTGGA CGAGATTGGT TTTCTAGTCT TATATTTTGC ACGGTTTCAA	5040
GAAAAGCGAG CACGTCTCTT AAAAAAGTGA GTGATGTGTA CATCAGGTGT CGGAACCTCA	5100
GAGCTTTTAC GAGCACGATT AGAAAAGCAA TTTTCTGAAT TGGATATATAT TGATGTAGTT	5160
GCTTATCATC AATTAGATGA GCTGATAAAT CTATATCCAG ATTTAGATTT CATGTGAGC	5220
ACGGTAGCTT TGCAGGAACC AGCAAGTGTG CCGTTTGTCC TAGTTAGTGT TTTTCTAACC	5280
GAGGTGATA AACACGCTCT TCAAGCAAAA ATTCAGGAGA TAAACTATGA ATAATCTTTC	5340
GCTTGCTCTT ATGGATATAT CTGTTCAAAA TCGTCAAGAA GCTTACAAAG AATTAGCAAA	5400
TCAAATCAGC CTCTTTGTTT CTGAAGATAA AGAAAAATA GAAGAGCTTC TATATTACCG	5460
TGAGAGACAG GGAAGTATAG AGGTTGCTAA AGGTGTTCTT CTACCACATT GTCAAGGAAA	5520
CTTTCAACAT CATGCTTAGT TGATTACTAG ATTAATAATCA CCTATCAGAG AATGGTCGAA	5580
GGATATCCAG TGTGTTGACC TTATTATCGG TTTGGCCATT GCAGTATCAC AGGACAAGTC	5640
ATGTATTAAA ACATTGATGA GAAGACTAGC AGATGAATCA TTCATAAATC AATTAAACAA	5700
GTTAACAAAA GAAGAATTAC GGGAGATAAT ATATGGAAAT CAAAGATATT CTTAATGTGA	5760
GTCTGATCCA GACGGATTTA CAGATGAGA GCAAGAGAAG GGTTTTGTAG GCATTAGCTC	5820
AACATTGTGT TGAGACGGGT TATGTGTCTG ATAGAGACCA ATTTATCGAA GGTCTTTATC	5880
AGAGAGAGGC AGAAGGACAG ACCGGTATTG GGAATTATAT TGTCTATTCC CATAGCAAGA	5940
GTTCGTCTGT SGAGAAGGCG GGGGTAGTCA TAGCTATAAA TCACAATTAG ATTCTTTGGG	6000
AGACCATTGA TGGGAAGGG GTCAAAGTAA TTGTACTCTT TGCAGTTGGT GATGATACAG	6060
AAGCTGTCTG CGAGCAATTG AAGACCTTAT CACTCTTTGC TCGAJAJAJCT GGTAAATGAG	6120
AAGTTGTGTC CAAATAGTTT CGGGCTCAGA CATCTGATGA TGTGATTGCA GCITTTTGT	6180
AATTAAGAAA AATTTTGGAG GGTATCCGTA TGAAAATGT TGGTGTGCA GCTGTACTG	6240
TGGGAATTGC CCACACTTAT ATTGACACAGG AAAAATTAGA GAATGCCGCA AAGGTAGCTG	6300

GACATGTGAT TCATGTTGAG ACTCAGGGGA CAATAGGGGT AGAAANTGAA TTGAGTCAAG 6360
 AGCAGATTGA TGCAGCGGAT GTAGTTATTT TAGCAGTTGA TGTTAAGATT TCTGGTATGG 6420
 AACGCTTTGA GGGTAAAAAG ATTATCAAGG TTCCAACAGA AGTGGCAGTC AAATCTCCCA 6480
 ATAACTGAT TGCTAAGGCT GTTGAGATTG TTACGAAATA ACTGAAATA TTTAAGGAGA 6540
 AATATATATG TGAACACTT AAACCTAAAA GGTCACTTAT TGACAGCCAT TTCTATATG 6600
 ATTCCAATTG TTTGTGGTGC AGGATTCTTA GTGCCATTG GTTTAGCAAT GGGGGGTGGT 6660
 GTTCTTGAGC CTCTTGATAG AGGAAAATTC ACTATCTGGG ATGCTTTAGC AACTATGGGT 6720
 GGTAAAGCCC TTGGTCTCTT GCCAGTTGTT ATGTCTACAG GTTTGTCTTA CTGATTGCT 6780
 GGTAAAGCAC GGATTGCACC AGGTTTGTG GTTGGTCTAA TTGCCAATTC TGTGGTTCA 6840
 GGGTTTATCG GTGGTATCTT GGGAGGTTAT ATAGCTGGTT TCTTGGTTCA AGCGATTATT 6900
 AAAAAGTCA AAGTACCAA CTGATTAJAA GGTTTAATGC CAACCTTGAT TATTCCTTTT 6960
 GTAGCCTCTT TGGTAAGTAG TTTGATATG ATTTATATTA TTGGAGGCCC TATCGCAGCC 7020
 TTTACCAACT GGTGACGAG CTTATTACAA AGCTTGGGAA GTGCTTCAA TGGTTTGATG 7080
 GGGGCAGTTA TTGGAATTCT CAGTGTCTGT GACTTTGGTG GCCCACTTAA TAAACAGTC 7140
 TATGGGTTTG TGTGACTTT ACAGGCTGAA GGTGTGAAG AACCAATTGAC TGTCTTACAA 7200
 TTGGTGAATA CTGCTACACC AGTTGGATT GGATTGGCCT ATTTTATCGC GAAATPACTC 7260
 AAAAAAATA TCTATPACTA AGAGGAAATC GAAACATTGA AATCGGCTGT TCCTATGGGG 7320
 ATTTGTCATA TTGTTGAMGG TGTAAATCCG ATTTGTTANGA ATAACCTGGT TCCAGGTCTC 7380
 ATTGCAACAG GTATCGGGTG TGTGTGGGT GGTGCTGTTT CTTTGACAA GTGTGCTGAT 7440
 TCTGCTGTGC CATTGGGTGG AGTGTCTATG TTAACAACA TGACTGTGCC AGTAGCTGTG 7500
 ATTTGTGCCT TGTTAGCTAA CATTGTAGTC ACAGGACTTG TCTACGGCAT TTTGAAAAAA 7560
 CCAATAAAA ATGCAGAAC AGTTATGACT GTTGAAGAAG AGATTGATTT GTCAGATATT 7620
 GAAATTTGT AAGAGGGTAA CGATGTCAAG AATTCAATTT TCACCATCTT TGATGAOACT 7680
 GGAATTGGAC AAATTCAAAG AGCAGATTAC TTTTTGAAT GATTAAGTAG CATCTTATCA 7740
 TATCGATATT ATGGATGGCC ATTTGTTGCC CAATATPACC TTGTCTCTCF GGTTCATTTCA 7800
 AGAAGTTCAA AAAATTAGTG ACACACCTTT ATCAGTTTAT CTGATGGTCA CAGACCCAAC 7860
 CTTTGGGTA GATCAAGTTC TCGATTACA ATGTGAGTAT ATTTGTATTC ATGCTGAAGT 7920
 TCTGAATGGT CTGTCTTTTC GTTTGATTGA TAAATTCAT GATGCAGGTC TAAAGGCTGG 7980
 TGTGTGCTCT AATCCTGAAA CACCTGTTTC TACAATCTTT CCTACATTG ATTTACTTGA 8040

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CAAGCAACT	ATTATGACTG	TAGATCCAGG	TTTTCACAGGA	CAACGCTTTT	TGGAGTCTAC	8100
CTTTGTAATAA	ATCCAAGAAC	TCCGTACAGT	TAGAGTTCAG	AATGGTTTATC	ACTACATCAT	8160
TGAGATGGAT	GGTCTCTCGA	GTCTGAAGAC	TTTCAAAACA	ATTGATGTGG	CAGGACCAGA	8220
TATTTATGTT	ATAGGTGCGA	GTGGATTATT	TGGTTTGGAT	GACGTAATTG	CCAAAGCCTG	8280
GGATATCTGT	TCTAGAGATT	ACGAAGAAAT	GACCGGAAAA	ACAATGCCAA	TCAATAATG	8340
GTTTGAGAAG	AAATTTATTA	GTTAGGAGGA	ATATATGTCA	CTACAATCAG	TTAACGCCAT	8400
TCGTTTTCCT	GGCGTAGATG	CTATTAACAA	ATCTAATTCT	GGTCACCCGG	GAATTGTGAT	8460
GGGTGCTGCG	CCAATGGCTT	ATAGCCTATT	TACAAAGCAC	CTTAGAAATTA	CACCTGAGCA	8520
GCCAACTGG	ATTAAACGAG	ATCGCTTAT	CTTGCTGCG	GGTCATGGAT	CAATGCTACT	8580
GTATGCTCTC	TTGCATTTAA	CAGGGTATAA	GGATGTATCC	ATGGACGAGA	TTAAAAATTT	8640
CCGGCAATGG	GGATCTAAGA	CACCTGGTCA	TCCTGAAGTG	ACGCATACGT	CTGGTGTGGA	8700
TGCGACATCT	GGTCCGCTTG	GTACGGGAT	TTCTACTGCC	GTTGGTTTGG	CCCAAGCAGA	8760
CGGTTTTTTA	GCTGCTAAGT	ACAACAAAGA	TGGTTTCCCT	ATTTTGTACC	ATTATACTTA	8820
TGTTATCGCT	GGAGACGGTG	ACTTCATGGA	AGGAGTGCTCT	CGGGAGCGGG	CTTCTTATGC	8880
AGGTCACTAA	GCTTTAGATA	AGCTTATCGT	CCTCTACGAC	TCCAACGACA	TCTGCTGGGA	8940
TGGTGAGACC	AAAGTACTCT	TCTCTGAAAA	TGPTCCGCTC	CGTTACAGATG	CTTATGGTTG	9000
GCATACAGTT	CTGGTAGAAG	ATGGAACAGA	TTTAGCAGCA	ATTTCTACAG	CAATTGAGAC	9060
GGCCAAGTTT	TCTGGTAAAC	CGAGTTTGTAT	TGAAGTGAAA	ACGGTAATTG	GTTACGGCTC	9120
ACCCAATATA	AGTGGTACAA	ATGCTGTCTA	TGGTGACCA	CTAGGAGCAG	AAGAACAGG	9180
AGCAACTCGT	AAGTTTTTGG	GATGGGATTA	CGATCCATTT	GAAGTACCAG	AGGAAGTATA	9240
TTCTGATTTT	AAGACAAATG	TAGCGGATCG	TGGTCAGGAG	GCATACGATG	CTTGGGCTAG	9300
TTTGGTGTCT	GATTACAAGG	TTGCTTATCC	CGAAGTTGCT	AGTGAGATTG	ACGCTATTGT	9360
AGCTGGAAAA	TCCCTGTATA	CCATTACTGA	AAAAGACTTC	CCTGTCATAG	AGAATGGCTT	9420
CTCTCAAGCA	ACTGTAAATT	CGTCCCAAGA	TGCTATTAAT	ACAGCAGCAG	TTTATCCAAC	9480
CTTCTTAGGT	GGATCGGCG	ACTTAGCTCA	CTCTAAATG	ACCTACATCA	AGGCAGATGG	9540
CTACAAGAT	AAATATAATC	CATTAAACCG	CAATATTTCAG	TTTGGGGTAC	GTGAATTTGC	9600
CATGGGAACA	ATCTCTAATG	GAATGGCTCT	TCATGGTGGT	TTACGAGTTT	ATGGCGGAAC	9660
CTTCTTTGTT	TTCTCTGACT	ACGTCAAAGC	TGCTATTTCG	CTATCAGCCA	TTCAAGAGTT	9720
GCGTGTAACT	TATGCTCTTA	CCCATGATTC	AATTGCCGTT	GGTGAAGATG	GTCCAACTCA	9780
TGAACCAAGT	GAACATTTCG	CAGGTTTACG	CTCAATGCCA	AACTTGACTG	TTATCCGCTC	9840

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AGCGGATGCC CGTGAAATC AAGCGGCTTG GCATCATGCC TTGACCAGTA CCACCACTCC 9900
 AACTGTTCATT GTCTTAACCC GTCAAAACCTT GGTAGTTGAA GAAAGGCAG ACITTTGGTAA 9960
 GGTGCTGATA GGAGCCTACG TCGTGTATGA TACCCCGGGA TTGTATCTA TTATCATTCG 10020
 TACAGGATCT GAGGTCAATC TAGCTATCAA AGCTGCTAAG GAATTGGTTT TACAAGGTGG 10080
 TAAAGTACGT GTGGTATCTA TGCCCTCAAC CGAACTATT GTGCTCAAG ATGCTACCTA 10140
 CAGGAAGAC ATTTTACCAT CTAAGACTCG TCGTCTGTG GCCATTGAAA TGGCAGCGAC 10200
 CCAAAGTTGG TACAAGTATG TTGGTTTGA TGGCGCGGTC ATCGGTATTG ACATCTCCGG 10260
 TGGCTCTGCC CCAGCTCAGA CTGTGATTGA TAATTATGGA TTTACGOTAG AGAATATCGT 10320
 TGCTCAAGTT AAGTCCCTAT AGAAACCAAT TACATGAAAG ATACAGCTGT TGTGAGACTA 10380
 GCAGATGTAG TGATAGACAC TAATCAGATG ATTGGTTATT TAAJAACTGT AATGAAATG 10440
 TAATAATTTA TCTACGAAG TTATAGTAGA TAGTATACAC AATAGAGTAT ACCCTGAAAC 10500
 GGTTCGGAAG TACGCTAATC ACTTTGCTAC TGATCTAGAT AGTTTCTTTA ATCAATAAAC 10560
 ACAGCATCCA CAGATTGACT TAGGATATTG TAAGTTTTTT GAAAGCTAGA GAGAAGTCT 10620
 CTAATAATTAA AAAACGCATA GTATAGATG TTGAJATGAT GAACTGCACC CCAAAGTTA 10680
 GACAGAAAAA AATCTAACTT TTGGGGTGTT TTTATTATGA AATTAACTTA TGATGATAAA 10740
 GTTCAGTTCT ATGAATCTAG AAAACAAGGA TATATCTTAG AGAAGCTTTC AATATAATTT 10800
 GGGATAAATA ATTTAACTCT TAGGTACATG ATTAAATTGA TTGATCGTTA CGGAATAGAG 10860
 TTCGTCAAAA AAGGGAAGAA TCGTTACTAT TCTCCTGATT TAAAAAAGA AATGATTCAT 10920
 AAAGTCTGAC ATGAAGGCTG GACTAAAGAT AGAGTTTCTC TTGAATACGG TCTCCCAAGT 10980
 CGTACGATAC TTCTTAACTG GCTAGCACAA TACAGGAAAA ACGGGTATAC TATTGTTGAG 11040
 AAAACMAAG GGAGAGTACC TGAGAGCGGA GAATGCCATC CTAJAAAAAGT TAAGAGAATC 11100
 CGATTGGAAG GAGGAAAAAG AGAATATAGA AAGACAGAAA TTGTTCAAGA ATTAATGACT 11160
 GAGTTTTCGT TAGATCTTCT TCTAAAAGCC ATTAAACTAG CTCGTGGAC CTACTACTAT 11220
 CACTTGAAC AGCTAGATAA ACCAGATAAG GACCAAGAGC TTAAAGCTGA AATTCAATCC 11280
 ATCTTTATCG AACACAAGGG AGATTATGCT TATCGCCGGG TTCAATTTAGA ACTAAGAAAT 11340
 CGTGTCTATC TGGTAAATCA TAAJAGAGTT CAAGGCTTGA TGAAGTACT CAATTACAA 11400
 GCTAGMATGC GACAGnAACG AAATATTCTT TCTCATAAAG GAG 11443

(2) INFORMATION FOR SEQ ID NO: 50:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 5338 base pairs

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(B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID No: 50:

CCAATTACAT TATATTATCA AAATCGTCGA AACTGGCTCC ATGAATGAGG CAGCCAAGCA	60
ACCTTTTATC ACTCAGCCAA GTCTCTCCAA TGCAGTGCGA GATTTGGAAG ATGAATGGG	120
CATTGAGATC TTTATCCGCA ATCCCAAGGG AATCACTTG ACCCGTGATG GCATGGAGTT	180
TCTCTCTTAT GCCCGTCAGG TTGTCGAGCA GACCCAGCTT CTGGAGGAAC GCTATAAAAA	240
TCCTGTGCGC CACCGCGAAC TCTTTAGCGT TTCGTCTCAA CACTATGCCT TTGTGGTCAA	300
TGCCCTTGTC TCTTTGCTCA AGAAAAGCGA TATGGAGAAA TACGAACCTC TCCTTCGTGA	360
AACTGCGACT TGGGAGATTA TCGACGACGT CAAGAACTTC CGCAGTGAGG TCGGGTCTCT	420
CTTCTTAAAC AGTTACAACC GTGATGTTTT AACCAAGATG CTGGATGACA ATCACCTGCT	480
AGCCCAACAT CTCTTCACAG CGCAACCGCA TATCTTTGTC AGCAAGACCA ACCCTCTGGC	540
AAAGAAGAC AAGGTGAAC TGTCTGATTT GGAGAATTTC CCTTACCTCA GCTATGACCA	600
AGGGACGCAC AACTCCTTCT ACTTTTCMGA AGAGATTCTT TCTCAAGAAC ACCACAAGAA	660
ATCCATTGTG GTCAGTGACC GTGCCACCTT CTPTAATCTC TTGATTGGTT TGGATGGTTA	720
TACCATTGCG ACAGGGATTT TGAACAGCAA CCTAAACGGA GACAATATCG TTTCTATCCC	780
ACTGGATATT GATGACCGCA TCGAGCTGGT CTATATCCAG CATGAGAAAA CCAGCCTATC	840
TAAGATGGCG GAACGCTTTA TAGACTATCT CTAGAAGAA GTTCAGTTTG ATAGTTGAGA	900
AATGATAAGA ACCAATATGT AGGCTAGCAA CAACCTGCAC ATTGGTTCTT TTTACTTATA	960
ATTAAAAGTT TCCCCTGCCA ACTTATCAGC TAGCTTGGGA AAGAGAGTAT AAAACTTATG	1020
GGCTAGGTTC AACAAAATCG GGAGATTGAG TTCTCGTTTG TTTTTCCTA TAATCTTGAC	1080
AATCTTTTTA GCCATGCAAT CTGGTTCTAG CAGGAAGCGA TCAACCGATT TAAGATAAGT	1140
TCCATCTGGG TCGGCTGGT CGAAAAATCC TGTACGATT GTCCTGGAT TGACTGTGT	1200
CACATAGACT CCATAGGGCA TAAGTTCGAG TCGCAGAGCA TTTGAAAAAC CAATAGCCCG	1260
AAACTTGGTC GCTGAGTAAA GACTAGACTT GCCAGTAGCT ATTAGACCTG CCATGCTGAC	1320
GATGTTTATG ATATGCGCTT TGCTGCTTTC TTCTATACGA GCCGCAAGGT GACGAGACAG	1380
ATTTCATCAG GCAAAGGTAT TGACCTCAA CATCTGGTGA ATATCTTTAT CAGCAATCTG	1440
GTCAAAATCC TCAAAAATCC CGTAACGAG GTTGTAAATC AAGACATCAA TCTTGCCATA	1500
GCGGAGATAA AGATCAGTTA CCAGAGCTTC TAGGGCTGAA TCGTCGGTAA TATCAATTTC	1560

AATCAATTCT	GCATGGGAAT	AATTTCCGTA	GAGTTGGGCT	AATTTTCCT	TAITTTCTACC	1620
AAGCAAGATG	AGTTGGTCTAT	TGGCAGGAG	TTTGAACAT	TCTTGAGCTA	GACCAACGCT	1680
AGCTCCGGTA	ATGAGAATAG	TAGGCATACT	TATCCTTTCT	GTGACTGCTA	GATTTCCACT	1740
TCTTCCAAGT	CTTTGACCAC	ATGGACATTT	TCAAAAATTG	TGGCAGCGTC	TTCTTTGAGT	1800
TTGCTAATAT	CTTTTGAGAG	GAAACGGCA	CTGATATGTT	TGAGTAGGAG	GCGTTTGACA	1860
CCTGCTCTTA	CCGCTACTTG	TGCAGCTTGC	ATATTAGTTG	AGTGACCATG	GTACGAGCA	1920
ATTTTTCAT	CACCTTTGCC	ATAAGTGGAC	TCATGAACTA	GGACATCTGC	ATTGACAGCC	1980
AGACGCACAC	TGGCACCCTG	TTTTCGAGTG	TCTCCTAAAA	TAGTGATAAT	CTTACTCTGA	2040
CGTGGCGCTG	AGATATAGTC	TGCTGCCCTG	ATTTCACTTC	CGTCTTCCAA	AACAAGATCC	2100
TGGCCGTTTT	TGATTTTACC	AAAAAGCGGG	CCGAACGGAA	CACCAGCAGC	CTTGAGTTTT	2160
TCAGCATCCA	GCCTCCCTTC	TAGATCCTTT	TGCATGACAC	GATAGCCAAC	ACAGAAAAATA	2220
GTGTGGTCCA	GCTCCTCTGC	ATACACAGTG	AATTTATCGG	TTTCAAGAAT	TTTACCCAGA	2280
GAATCTTGTT	CAAACTCATG	GAAATGAATG	CGGTAGGGCA	GACGAGAACC	TGACACACGA	2340
AGGCTGGTTA	AGACAAATGA	CTTGATTCTT	TGAGGTCCGT	AGATTTCCAA	ATCTGTCTGC	2400
TCTTCATTGG	CCTGAAAGGC	ACGGCTAGAA	AGGAAACCTG	GCAAAACAAA	AATGTGGTCT	2460
CCATGCAGAT	GGGTAAATAA	GATTTTGCTG	ACCTTACGTG	GTCAAAATTG	GGTTTCCAGA	2520
ATGCGATTTT	CGGTACCTTC	TCCACAGTCA	AAGAGCCAAA	CTTCGTAAAT	CTCATCCAAA	2580
AGTTTCAGGG	CGAGACTTGA	AACGTTGCGG	GCTTTAGAGG	GCTGACCAGC	CCCCTTCTCT	2640
AAAAATTGAA	TATCCATTCTG	ATACTTTCTA	ATTAATCAAT	ATATAACATG	GCTGTGCGGT	2700
TTTCOGATCG	GAAATAGCGT	TTGCCAGAAA	AAGCAGCAGC	TTCTTGCAAT	AAATCCTCTT	2760
GGCTGTAGCC	TTTGAGACGT	TTTCGACCAT	CAGCCAATCT	TTCCAAATCA	GTCAAAAGCTG	2820
TGAGACTTTT	TAGGCTGATA	ACTTCTCTGT	CCTCGACAGG	CTTCATGTAA	ATCTTACCAG	2880
ACTCTTCAAA	GACTAATTGA	TGGGGGAAAA	TTTGGCGCAAT	TTCAAGAGAG	AGTCAATCCG	2940
AGATTTTCTC	CTCATTTTCA	AAGAAAAATCC	GACCAAGGCC	GTCACTCTCA	TAACAAAAAC	3000
CAAAAGGATTT	ACCAGACAGA	TTAAGCCGAA	TAAAAGGCTT	ATTTTCTAGG	GTGAAACTTG	3060
GCTCAGTATT	GTAAAGATTTC	AGTTCCTGAC	TGAGTTCTGC	AAAAATATCC	GTCCGAGCCT	3120
GAGGACTCTT	TTTCTGATAG	AGTTCCTGAA	AGTAGGCATT	AACAACAACCT	GGCGAGGTG	3180
TAACTAAGTGT	TAACTGCTCC	TGATCTGTGT	TACCAGCTAG	AAGCTGATCC	AGATAGACCT	3240
TGTCAGACT	TGTATAACCT	CCATACTTTA	GAGCCAAAGT	TTTAAATATCA	GTCAATAAAT	3300

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TCTTCTAACC TCCATTATT TTTCTCGAA ATGTAGCTG TAATCACTTC GCCGTCTTCC	3360	
TGATAATCAC GTTCTTCCAG AATTGCAACA CTCTCTAAAT CATGAATCTT GTAGGACTTT	3420	
GAAAAAGGCA CTGCGAGGT AAATGCTTCA AAAATTTCTT TAATCTTATC TAGCAATAAT	3480	
GCTTGCAAGT TTTACGACT GTCTCTAGAC TTGGCAGAAA TGAGGGTATA TGGCGTTTGG	3540	
GTAGCGGTGA AATCTCCAC CAATCCGCT TTATTATAAA GCGTCAAGTG AGGAATATCT	3600	
TCCATGTCCA GGTCTTTCAT GATGGAGAGA ACCGTTTTTT CATGCTCTCT GTGGTAAGGA	3660	
TTGCTAGCAT CGATAACATG AACAGAAGG TCCACATGCT TGCTTTCTTC CAAAGTTGAC	3720	
TTGAAACTGG ACACCAACT TGTCGGCAAA TCTTGGATAA AGCCAACGGT ATCTGTCAAA	3780	
GTTACTTGGA GATTGCCTCC CAGATGAATA CTCTGGGTG TCGCATCCAG AGTGCAGAG	3840	
AGCTCATCTG CTTCATACTG GGTCTTACTG GTCAAGATGT TCATGATAGT TGAITTCCTA	3900	
GCATTAGTAT AACCAATCAA ACCAATCTTA AAAGTGCTAG ACTCCAAACG TTTTCTCTG	3960	
ACAGTGGCAG GATTTTCTC AACCACTTG AGCTGGCGCT CGATATCCGT GATTTGATTG	4020	
CGAACGCTAC GACGGTTGAG CTCCAGCTGG CTTTCAACAG GACCACGGGA ACCAATTCCC	4080	
CCTGCTGAC GGCTGAGCAT AATCCCTGA CCAACCAAG GAGGCAAAAG GTATTTGAGT	4140	
TGGCTAGGT GGACTGGAG CTTCCTTCA TGGCTTCGAG CCCGCAATGC AAAGATATCC	4200	
AAATCAACT GCATACGGTC AATGACCTTA ACACCGAGAA CTTCCTCTAG ATTGACATTC	4260	
TGCTTGGGG TCAGACGATT GTTGACGATG ACAGTAGTGA TTTCTTCTGC ATCCACCATA	4320	
AGCGCAATCT CTTCCAATT ACCAGAGCCG ACGAAGGTCT TGGAATCATA TTTTCAAGT	4380	
TTTTGTCTGT AGCTATCTAC AACGACTGCC CCGCGGTIT TCGCTAAACT AGCCAATTCT	4440	
TCCATGGAGA GGTCAAACT GTCCATACCC TGCAATTOCA CACCAATCAG CAGGACTCGC	4500	
TCCTCTTTTT TCTCGTTTC AATCATCTAA AAACCTCTCT ATCTGGCTTA AATGCGGTG	4560	
TTGTACACCA GATTCTCAA TCTGATAAAA GGTGACCTGC ATGCGATTAC GGAACAGGT	4620	
CAGCTGACGC TTGGCAAAAC GACGATCGC CTGTTAAGA CTCTCACTAG CTTCCTCCAA	4680	
GGTCTGCTCT CCACGGAAAT AAGGAAAGAG TTCTTATAG CCAATTCCTT TAGCAGCTG	4740	
TACATTAGGG GAATGGTCAA ACAGCCACTT GGCCTCATCC AAAAGCCGAC CCTCAAAAT	4800	
CAAAATCCAT CGGTGGTTGA TAGGCTCATA AAGTTGACTA CGTTTCATCAT CCAAGCAGAT	4860	
AATCAGCGGT TCATACAAGG TCTCTTGATT TTCCAAATCC TGACCAAAAT GGGCAATTTC	4920	
TAAGGCACGC ATAGCAGGAC GACGATTAAA CTGGGGAATC TCAAGGCGTG CTTGATCCAC	4980	
CAATGGGCT AATCTCTCAT CTGAATATGG CTCCAAATA GCTCGATAAG CTAATAATCTC	5040	
CTCATGAGGA GTCTCCCCAC CTAGGTGGTA ACCTTCTAGC AAGCTCTGGA TATAAAGTCC	5100	

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AGTCCACC	GCGATAATGG	CTAGCTTGCC	ACGGTTGTGA	ATACCTCAA	TAGTCATCTT	5160
AGCTTCTGAA	ACAAAATCAA	AAGCCGAGTA	AGACTCCCTT	ATCTCTCTAA	CATCGATTAA	5220
ATGATGAGGA	ACAGCTGCCT	GCTCTTCTGG	ACTAGCCTTG	GCCGTCCCAA	TATCAAGTCC	5280
TCGATAGACT	TGCTGGCTAT	CTCCACTAAC	CACCTCGCCA	TAATAACGCT	TTGCGGGG	5338

(2) INFORMATION FOR SEQ ID NO: 51:

- (1) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19446 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 51:

CGGAAACCCA	TCTAGTCTCC	ATCGTTGGG	AGACCAAGCA	ACACGAATCT	TAGATGCTTC	60
TCGCCAACAG	ATTGCAGATT	TAAATCGGTAA	GAAAAGCGAT	GAAATCTTCT	TTACCTCGGG	120
TGGAACAGAA	GGGGATAACT	GGCTTATCAA	GGGTGTGGCC	TTTGAAAAAG	CTCAGTTTGG	180
CAAGCACATC	ATTGTTTCAG	CCATTGAACA	TCCAGCAGTC	AAGAAGTCAG	CCCTCTGGTT	240
GAAAAATCAA	GGATTGGAAG	TGGATTTTGC	TCCAGTTGAT	AAGAAAGGCT	TGGTCGATGT	300
TGAGGCGTTA	CAGGTTTGAT	ACGGCATGAT	ACAATCCTCG	TTTCATCAT	GGCTGTGAAC	360
AATGAJAATCG	GCTCTATCCA	ACCTATTGAG	GCTATTTTCA	AATCTTTGGC	AGACAAGCGC	420
ACTATTTTCT	TCCAGTTGA	TGCGGTTTCA	GCGCTTGCCA	AAATCCGAC	TGAAAAATAT	480
CTGACAGAAC	GGGTGGATTG	CGCGACTTTC	TCTAGTCACA	AGTCCACCG	GGTTCGAGGT	540
GTGCGCTTTG	TCTATATCAA	ATCTGGCAAG	AAGATTACAC	CTCTTCTTAC	AGGTGGTGGC	600
CAGGAGCGAG	ATTATCGTTC	GACAACTGAA	AATGTGGCAG	GGATTGACGC	GACAGCCAAAG	660
GCCCTTCGTT	TGCTATGGA	AAAGCTAGAT	ATCTTTAGGA	GCAAGACTGG	GCAGATGAAG	720
GCAOTGATTC	GCCAAGCTCT	TCGAACTAT	COGGATATTT	TTGTCTTTTC	AGATGAGGAA	780
AACCTTGAC	CTCATATCT	GACTTTTGA	ATCAAAGGTG	TTGAGGTGA	AGTCATCGTT	840
CAGCGCTTTG	AAGACTATCA	TATTTTCATC	TCAACAACCT	CAGCTTGTTC	ATCTAAGGCA	900
GGAAGACAG	CGGTACCTT	GATTGCCATG	GGAGTGGACA	AAGATAAGGC	CAAGTCAGGT	960
GTGCGCTTTA	GCCTAGACTT	GGAAAATGAT	ATGAGTCAGG	TCGACAGTT	TTTGACCAAG	1020
TTAAJAATTGA	TTTACAATCA	AACTAGAAAA	GTAAGATAGG	AGCATTCATG	CAGTATTCAG	1080
AAATTAATGAT	TCGCTACGGA	GAGTTGTCAA	CCAAGGGTAA	AAACCGTATG	CGTTTCATCA	1140

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ATAAACTTCG TAAATAAT TCGGACGTTT TGTCTATCTA TACCCAAGTT AAGGTAACAG	1200
CAGATCGCGA CCGTGCCAC GCTTACCCTCA ATGGAGCTGA TTACACAGCA GTTGCAGAA	1260
CTCTCAAACA AGTTTTTGGG ATTCAAAAT TTTCTCCTGT TTATAAGGTT GAAAAATCTG	1320
TAGAAGTTTT GAAGTCTTCT GTCCAAGAGA TTAATGCGGA CATCTACAAG GAAGGTATGA	1380
CTTTTAAGAT TTCTAGCAG CGTAGCGACC ACAACTTTGA ACTTGATAGT CGTGAATCCA	1440
ACCAAACTACT TGGAGGGGCT GTATTGCAAG CCATTCCAAA TGTGCAAGTT CAAATGAAAA	1500
GTCTTGACAT CAATCTTCAG GTGGAGATTC GTGAAGAAGC AGCCTATCTT TCTTATGAAA	1560
CCATTCTGGT GGCTGGTGGT TTGCCAGTTG GAACCTCAGG TAAAGGGATG CTCATGTTGT	1620
CAGGAGGGAT TGACTACCT GTAGCAGGTT ATCTTGCTCT TAAGCGTGGG GTGGATATCG	1680
AGCGATTTCA CTTTGCTAGT CCACCATATA CTAGTCTGTG TGCCCTCAAG AAAGCGCAGG	1740
ACTTGACCCG TAAATTGACC AAGTTTGGCG GAAATATCCA GTTTATAGAG GTGCGTTTCA	1800
CAGAGATTCA AGAGGAAATC AAGGCCAAG GCCCAGAAGC TTATTGTATG ACTCTAACTC	1860
GTGCGTTTAT GATGCGGATT ACTGACCGTA TTCGTGAGGT ACGAAATGTT TTGTTTATCA	1920
TCAATGGGGA AAGTCTAGT CAAGTAGCCA GCCAAACCTT TGAAAGTATG AAGGCTATCA	1980
ATGCTGTTAC CAACACTCCC ATCATTCTGC CTGTGCTTAC CATGCAAG TTGGAATCA	2040
TTGACATCGC CCAGGAAATC GATACCTTTG ACATTTCAAT CCAACCGTTT GAAGACTGTT	2100
GTACCAATTT TGACACAGAT CGTCCAAAAA CAAATCCTAA AATTAAGAA TCGGAGCAGT	2160
ACGAAGCGCG TATGGATGTT GAAGGCTTGG TTGAGCGAGC AGTGGCTGGA ATCATGATTA	2220
CTGAATCAC ACCTCAAGCC GAAAAAGTG AAGTTGATGA CTTGATTGAC AATCTGCTCT	2280
AATTCAGAAA ATCCAAAAGA ATAGCGAAAA TCAGTAAAAA AAGTTAGTTT TTTCTCTAAA	2340
AACAGGTAAA AACTAACTT TTTTATTTT TATGATATAA TGATATAAAA TTTTGAATAT	2400
AGAGAGTTT CTGACAATGA ATCAATCTTA CTTTATCTA AAAATGAAG AACCAAACT	2460
CAAGGTTCCT TATACAGGTA AGGAGCGCCG TGTACGTATT CTTCCTCCTA AAGATTATGA	2520
GAAAGATACA GACCGTCTCT ATCCTGTTGT ATACTTTTCA GACGGGCAA ATGTTTPTTAA	2580
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TAGTAAACAT CGGCAACAAA TCGTTACTTT TTCAACCTTT GGAGCCAAGC AAGCTCTTGG	16440
AGATGCTTGG AAACGCTTTG GTGTGCCAGA GTATGAATTA TCTGCAATTA CTAAGAAATAT	16500
CAGTTTTGCT GACAATCTTA AGTCGGCCTA TGAGGGAAT CTCCAGTTTC CTCAGCAAAAT	16560
CAATAGTAAG TTAGAAATACC AAAAAGCTTT TGAGATTGCT TGCAAGATAG AGGGCTATCC	16620
AAGGCAACCC TCTGTCCATG CGGCTGGTGT TGTAAATAGT GACCAAGATT TAACCAACTA	16680
CATTCTCTTA AAGTATGGTG ATGAATTTCC ACTGACTCAG TATGATGCTC ATGGAATTGA	16740
GGCTAGCGGA CTTTTGAAGA TGGACTTTCT GGGACTACGA AATTTGACCT TTGTCCAGAA	16800
GATGCAAGAG TTGCTTGCTG AAACAGAAAG TATTCTATCT AAAATTGAAG AAATCGATTT	16860
AGAAGACAAA GAAACGTTAG CTTTATTTGC CTCTGTAAT ACAAAAGGTA TCTTTCAATT	16920
TGAGCAACCA GGTGCCATTC GTCTGCTTAA CCGTGTCGAA CCAGTCTGTT TTGAAGATGT	16980
CGTCCGACT ACTTCTCTAA ATCGACCGGG TGCTAGTGAC TATATCAATA ATTTTGTGGC	17040
AAGAAAGCAT GGGCAGGAAG AAGTGACTGT TCTGGATCCA GTACTGAGG ATATTTTGGC	17100

TCCAACTTAC	GGCATAATGC	TCTATCAGGA	GCAGGTATG	CAGGTTGCC	AGCGACTGCG	17160
CGGATTTAGT	CTTGGGAAAG	CCGATATTTT	GGTCCGGCT	ATGGGGAAA	AGGATGCTTC	17220
TGCCATGCAT	GAGATGAGG	CTTCTTTAT	TCAAGGTTC	TTAGAAGCTG	GTCTACTGT	17280
GGAAAAAGCA	GAGCAGTCT	TTGATGTTAT	GGAGAATT	GCAGGTATG	GTCTTAACAG	17340
GTCCACGCC	TATGCCACT	CAGCCTTGG	CTTCCAGTT	GCCTTATTC	AAACGCATTA	17400
TCCAGCCATT	TTTATCAGG	TCTATGTTAA	TTCTTCCAA	AGTGATTA	TAATAGATGC	17460
ACTTGAAGCA	GGTTTGAAG	TAGCCTCTCT	ATCCATCAAC	ACCATTCCCT	ATCAGCATTA	17520
AATTGCCAAC	AAGCCATCT	ATCTAGGTTT	GAATTCATT	AAAGGAGTCA	GTATGATTT	17580
AGCTCTCTGG	ATTATGAAA	ATAGACCTTA	TTCTAACATT	GAAGATTTTA	TAGCTAAAT	17640
ACCTGAGAAT	TATCTGAAC	TTCTCTGCT	AGAACCTTG	GTAAAGTTG	GTCTTTTGA	17700
TTCAATTTGA	AAAAATCTG	AAAAAGTATT	TAACTACTTA	GCTAATCTAT	TTGAATTTGT	17760
GAAGAGTTG	GGAGTTTGT	TTGGAGATGC	TATTTATAGT	TGGCAGGAAT	CGGAAGATTG	17820
GACGGAACA	AAAAAATTT	ATATGGAACA	AGAGCTTTTA	GGGATAGGTG	TCAGCAACA	17880
TCCACTACAA	GCTATTGCAA	GTAAAGCTAT	TTACCCGATT	ACCCCAATCG	GAATTTTGT	17940
AGAAATAGC	TATGCTATTA	TCTTGGTTGA	AGTTTCAAAA	ATAAAGTGA	TTCTATACCA	18000
AAAGGGTGAA	AATATGGCCT	TCTTACAGGC	AGATGATAGT	AAGAAAAAT	TGGATGTCTAC	18060
TCTCTTTTCA	GACTTATATC	GTCAAGTTGG	ACAGGAAATA	AAAGAGGGAG	CCTCTACTA	18120
TGTAAAGGA	AAATACAA	CAGTGATGG	CGCTCTGCAA	ATGATTGCA	AAGAAATAG	18180
AGAAGCAGTT	GCTGAACCT	TTTGGATACA	GGTGAATAAT	CATGAATCGG	ATCAGGAAAT	18240
TTCAAGCATT	TTAGAACAA	TTAAAGGCC	AATCCAGTC	ATCATCCGGT	ATGAAGAGGA	18300
ACAGAAAAAC	ATCGTTTCTC	CCCATCATTT	TGTAGCTAAA	TCCAATGAAT	TAGAGGAGAA	18360
ATTGAATGAA	ATCGTTATGA	AAACGATTTA	TGGTAAAAA	TACGGAAAAAT	AGAAGAAATTT	18420
TCAACGTAAA	TGTGTGATAA	TCTAGTAAGAA	TGTTAAAAA	AAAGGAGCA	TAAACATAAT	18480
GAACGTATT	GCTGTTTGA	CTAGTGGTGG	AGACGCCCT	GGTATGAACG	CTGCCATCG	18540
TGCAGTTGTT	CGTCAAGCAA	TTTCAGAGG	AATGGAAGTT	TTTGGTATCT	ATGACGGATA	18600
TGCTGTGATG	GTTCGGGGTG	AAATTCATCC	CCTAGATGCA	GCTTCAAGTAG	GGGACATCAT	18660
TTCTCGTGGT	GGTACTTCC	TTCACTCAGC	TGCTTACCCA	GAGTTGCTC	AACTTGAAGG	18720
GCAACTTAAA	GGGATTGAGC	AATTTGAAAA	ACACGGAATT	GAAGGTGTAG	TGTTTATCGG	18780
TGTTGACGGA	TCTTACCAGC	GGCTATGCG	TTTGACTGAA	CATGGCTTCC	CAGCTATTGG	18840

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TCTCCAGGT ACAAACGATA ACGATATCGT TGGTACTGAC TTACAAATCG GTTTTGACAC	18900
AGCGGTACT ACTGCCATGG ACGTATCGA TAAGATTCGT GATACATCAT CAAGTCACCG	18960
TCGTACTTTT GTAATCGAAG TTATGGGACG TAACGCTGGT GATATCGCTC TTTGGGCTGG	19020
TATTGCAACT GGTGCTGATG AAATCATCAT CCTGGAAGCA GGCCTCAAGA TGGGAAGATAT	19080
CGTAGCAAGC ATCAAAGCTG GTTATGAATG TGGTAAAAAA CACAATATTA TCGTCTTAGC	19140
TGAAGGTGTG ATGTACAGCG CTGAATTTGG TCAAAAACCTT AAAGAAGCTG GAGATACAAG	19200
CGACCTTCGT GTAAACAGAAC TTGACATAT TCAACGTGGT GOTTCTCCAA CTGCGCGTGA	19260
CCGTGTTTTG GCGTCACTA TGGGTGCACA TGCTGTTAAA CTTCTTAAAG AAGGTATCGG	19320
TGGTGTTCGG GTTGGTATTC GTAAACGAAA AA'TGGTTGAA AA'TCCAATTC TTGTTACTGC	19380
AGAAGAAGGG GCATTGTTTA GCCTTACTGC AGAAGCTAAG ATTGTGGTTA ACAACCCAGC	19440
TACAAA	19446

(2) INFORMATION FOR SEQ ID NO: 52:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 16593 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 52:

TCGTAAATAT GCTCTGTTT TGGATTTTGT TTCTTAACTT GTTTGGCAAG TGCCCTCATC	60
ATAGAAATAG GACCACACAT ATAGACGGTT GCATGTTCCG GCACCTCITT TTGTTCAAAA	120
TTAAGATAGC CGTCTTTTGT ACTGTCGATT AGATGGAGTT CAAAATTAGC ATTTTCTGA	180
GCATAGTTAC GGAGTAAATC TAGGTAGACT GCATTTTCAT CTCCAAGGAA GCTATAGTAG	240
AAGTGAACCT GTTATCTAA AATAGGATGT TCACGGATGT AAGAGATGAA GGGGGTGATC	300
CCAATACCTC CAGCAATCCA AACCTGATT TCTCGTCCTT CTCTATGAT CATGTGTCGG	360
TAAGCTCTGT CTAGGGTTAC TTTGCTGCCG GCTTGAAGAT TATCATAGAT ATTCTTGTA	420
TGTCGCGCTG AAGTTTAAAC AGTAAAGTAA AGAGTTTGAC CATGACCTCC TGAGATAGAA	480
AAGGGATGCG GAGCACTTTC AAAGCCTTCT TGGAAATCTT TTAGAAGGCA AAATTGTCTT	540
GATTGATAGT TGAAAGCTCT GCTAAGATGG ATTTGAATTT CTCTATGATC GTGATTTAAG	600
CGTTTGAGAT GGGTAATTTT CCCTAGATAG GGAAGGAAA TCTTTTGATA TAGAAAAATG	660
ATATAAAAC CAGTAGTAA GCCTAAAGG GCATAGCTAC CAACAGAAA ACTTAGAAGA	720
TTAAATGTAA GGAGACGATT GCCCAATATC ATGTAGATGT GAAAGAGTCC TAAATATATG	780

GCTAGGTAAA	CCAGGCGGTG	AATCCATCGC	CAAGCTTCGT	ATTGGATGTA	TTTGCCTAAA	840
TAGGCGACAA	GGATGATGCT	GGCAAGATA	TAGATGGCAA	GATTGCCAAA	CTGAGCAGAT	900
AAGCGAGAGC	CCACAAACC	GCCCATACTA	AAGTTATGAA	AGATTAGTAG	GATGATTGAG	960
AGAAAGCGTG	TGAATTTGTG	GACGGTGTAG	ACCTTCTCCA	AACTGTGAAA	CCAGCTTTCT	1020
AGTAGTGGGA	GACGAGTGGC	TAGGATAAAA	GTGAGAGATA	GGCTTGTTAA	AGCTAGTCCCT	1080
GGAAATCATGA	ATTGGGGAGA	AGTGTTCATC	CAAGTCAAAA	GAGTCAAGAT	AAAAGTAGCT	1140
ATGATAAAGA	GTAAGCTCTT	GACTGATTTT	ATAGAAAATT	CCATTTTCAT	TAGAATTTCGA	1200
TTTGTGTAA	ATAAATTTGT	TACATTTTAT	CATAGAAAAT	GTATGGTGTG	AAATTGAGGT	1260
CTATAAATAT	CTACTCTCAT	CAAAAAACTC	TCCAAATTGA	CTGGAGAGTG	GCTGTTTATA	1320
CTCAATGAAA	ATCAAAGAGC	AAACTAGGAA	GCTAGCCGCA	AGTTGCTCAA	AACACTGTTT	1380
TGAGGTTGCA	GATGAGCTG	ACGTGGTTTG	AAGAGATTTT	CGAAGAGTGT	TATTCTGCAG	1440
CTTGTTGCCA	ACGTTTGGCT	AGCATATGAG	ACAGGCTAGA	AATTGCTAGG	TTAAAGCTGA	1500
AGTAGATGAG	GGCAATCAGG	ATGTAAGAAC	TGAGACCTTG	CTCTGTTTCG	AAATAACGGC	1560
CCATGAGAA	TTGGCTGGCT	CCAAAGAGTT	CTTGATGGGC	GATAACAGAG	TAGAGGAGAC	1620
TGSTATCCTT	AATCACGGTA	ACAAACTGAG	AAATGATGSC	TGGTAGCAAT	TTGCGGATGG	1680
CTTGTTGGAG	AATGATGTAG	TAGAGGATTT	GGGCTGAGGT	GAAGCCTTGT	GACATTCCTG	1740
CTTGTAAGTG	TCCCTTGCTT	ACGGCAATGA	GACGGCCTCG	AATAATCTCA	GCCAAAGCGT	1800
CTGATGTAAA	GAGAGTAAAG	GCTGTAATAC	CTGCTGGTGT	GGATTTTCAT	TTGAACACCA	1860
AAAAGATAGT	AAAAATCCAG	AGAAGGTTGG	GAACTTTGCG	CACAAACTCG	ATATAAATAC	1920
TGGAAATPAT	GCGTAAGACA	GGATTTTTCG	CATTTCTCGT	GACAGCTAGC	ACCGTACCGA	1980
TGATAGTAGA	GAGGATGATG	GCAATCAGAG	AAATATAGAG	GGTCAAGCCA	AATCCTTTAA	2040
AGATAAAGAC	TAGGTTATCT	GGGGTTAAAA	CTTCTAAAAA	AGATTCCATA	GTAACCTTCT	2100
AAAGTGAATA	GGCTTTTTTG	TTGGCTTGCT	CCATCTTGCG	ACCAAACTGG	GCAACAGGGA	2160
AGCATAGAGC	AAAGTAGAGA	AGAGCAGCAC	CTAAAAAGGC	TGGTATATAG	TTTCGGTTGA	2220
GACCGGACCA	AGACTTAGTC	ACAAACATCA	AGTCTACTCC	AGAGATGATA	GCTACAGTAG	2280
AGGTGTTCTT	GATGAGGTTA	ACAAATTTGGT	TGGTCAATGG	AGGGAGAATG	ATGCGGAGAG	2340
CCTGAGGCAA	GATAATCAAG	CGCATGGCAC	TGATATAGGT	AAACCTTGCC	GACAAGGCGG	2400
CCTCCATCTG	ACCACTAGGA	ATAGACTGAA	TCCCTGAACG	AATAACCTCA	GCGATATAG	2460
CGCCGTGATA	GAGTCCACG	CAGAGACGG	CTGTCCAATA	AATTGGGAATC	ATGATGATAT	2520

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GGTCACTGAT	AAGAGGTAGG	CCATAAAAA	CAATAACAAA	CTGCACCAAG	AGCGGAGTAT	2580
TTTGCTAAAA	TTCAACAAG	ATGCGAGCTA	AAATGCGTAA	AATTGGACGT	TTACTGGTTG	2640
ACATGGCACC	AAAGAAGATG	CCCAAAACCA	TAGCCGAGGAT	AAAGGAACCA	ACCGCTAGGG	2700
CAAGGGTGAA	GAGGAAACCA	TTGAAAAATT	GTCCAAAATC	CTGAAAATAG	GCTCTCCAAG	2760
ATGATAAATC	TGTCTGGGG	TGTCTCTCTT	AAATCTGCAGT	ATGGCTAGAT	GGTTTGAGCT	2820
TGTAACGGTC	ATAAAGTTTC	TGCAAACTAC	CATCCCTGCT	CCATTAGTA	ACCAAGTTAT	2880
CAAGATAGTC	GTTCAGCTCT	GTATTTGATT	TCTTGGTAAC	AATACCGTAG	TCAGATGGCT	2940
TGAAACTATC	ATCTAGTAGT	GCTGTCCGTT	TACTAGTGTG	GCCAGATAGA	ATAGAGCGGT	3000
CAACGGAATA	GGTATCGATA	CGATGAGCGT	GCAGGGAAGT	AATCAATTCT	GGGTAGGAAC	3060
CAAGTTCGAC	GAATTTAAAC	TTCAAGACCTT	TCTTTTTTACC	CAGTTACAGTA	ATCAGGCGTT	3120
GGGTGATAGA	ACCTTGGGCG	ACTCCGATGG	TTTTGCCGTT	TAGGCTCCTCA	ATCTTTTTGA	3180
TTTTGGCAGA	TTTATTGACC	AAAAATCCAG	AAGCGTCTGT	GTAGTAGGGA	CTGGTAAAGT	3240
TGTAGAGTIT	TTTGGTTTCG	TCCGTGATGG	TAAAGGTCGC	GATATCCATA	TCGACCTGTT	3300
CATTGTCTAG	AAGGGGGCCG	CGGGTTTGTG	CTGTAAACCG	CACATACCGA	ATCTTGACCT	3360
TGAGTTCATC	AGCTACCATC	TTGGCCAAAGT	CGGTTTCGAT	ACCAGAATAA	GTACCGGTCT	3420
TGGGATCTTT	GTAACCAAAA	TGGGGAACGT	CTTGTTTGAC	ACCGACAACC	AGTTCGCCCTC	3480
TTTTTTGAAT	GTCTCGGATA	CTTGTATCAG	CTTGGACTGG	TTTGGCAGCA	GCAAGGCCGA	3540
AAAGGCTAAT	CAATAATGCT	GATAAAAAGA	ATTTTTTTTC	ATAGCGGCCT	CCTTATTTGA	3600
CTTTGTCACT	TTCTGGTTTG	ATAAATTITG	TGAGGAATTG	TTGGGCACGA	GGTTCCGTTG	3660
GATTTCAGAA	AAAGTTATCG	ACATCTGTGC	TATCTACTAA	AAGTTCTCCG	TCGGCCATAA	3720
AGATAATGCG	GTCCGCAACC	TCTCGAGCAA	AGCCCATTTT	GTGGGTAAAG	ATGATCATGT	3780
TCATCCCATC	ATGCGCCAGT	TTCTGCATAA	CTGCTAGAAC	ATCTCCGATA	GTCTCAGGAT	3840
CAAGACGAGA	TGTGTGTTCA	TCAAAAGGGA	GGAGTTCCGG	ATGCATAGCA	AGACCAAGAG	3900
CGATGGCGAT	CGCTGTGTTT	TGTCCACAG	ATAGCATGGC	GGGATAGGAA	TCTTTCTTGT	3960
CCCACATATT	TACAAATTTCC	AGATATTTTTT	GGGCGGTTTT	TTACAGCTTCT	TTTTTATCAA	4020
TTCTTAGAAC	TTCAATGGGT	GCAAGCGTTA	CGTTTCTTAA	CACAGCTTTG	TGTGGATAAA	4080
GGTTAAATG	TTGAAAAACC	ATGCCGACTT	CCTTGCAGAG	AGGTACCAAA	TCTTTCTGCG	4140
TGGCACCAGC	AACTTGGTGC	CCATTGACTA	GGAGACTTCC	TTTGTCAACA	GTCTCTAAAC	4200
CATTGATCGT	ACCGATAAGA	GTGGACTTCC	CAGAGCCAGA	AGGTCCAAGC	AGGACAACAA	4260
CTTGTCTTTT	TTCAAAACGG	AGATTGATGT	TGCGGAATGC	GTGGTAGTCT	CCGTAAATAT	4320

TTTCGACGTT TTTAAATCT ACTAAAGCCA TGAGAGATCT CTATTGTGTT ATATTTTATA 4380
 ACACGGTTCT ACAATAAAG AATGTTCTTG TCAATCATATA TCTGAAAAA TTCATATATAG 4440
 TGAATAAGA ACAGGAAAA TCGATCGGA CAGTCAAATC GATTTCTAAC AATATTTTAG 4500
 AAGTAGAGGT GTACTATCT AGTTTCAATA TACTATAAAA TGTTATAAAA AAGCAATCTG 4560
 GATAGAGAAA ACGTCTAAAT CATGTTATAA TGAAGCAATA GAATCTTAG AAGAGTGA 4620
 TCTCTTTTG ATAAACACTA CTATGAAATG GCAGTTTGCC CTGCAGGTAG AAGATGCGGA 4680
 TTTTACAAAG ATAGCCAAGA AGGCTGGACT GGGTCCTGAG GTGGCTCGT TATTGTTTGA 4740
 GAGAGGGATT CAGAACCAAG AAAGCTCGAA GAAGTTTTF AACCCTTCT TGGAGGACTT 4800
 ACATGATGCT TATCTGCTCC ATGATATGGA CAAGGCAAGT GAGCGGATTC GTCAAGCTAT 4860
 TGAAGAAGGG GAAAAATTC TTGTTTATGG AGACTATGAT GCGGATGCA TGACTTCGCG 4920
 TTCTATTGTG AAGGAAAGTT TGGAACTT TGGTCTGAG TGCCGAGTTT ACCTGCCAAA 4980
 TCCCTTTTACC GATGGCTATG GCCCTAATGC TAGTGTATTAT AAATACTTTA TCGAGCAAGA 5040
 AGGGATTTCC TTGATTGTGA CGGTGACAA TGGGGTTGCT GGTCTAGAG CTATTGCAAT 5100
 GGCTCAGTCT ATGGGAGTAG ATGTCATTGT GACAGACCAT CATTCATGC CTGAAACCCCT 5160
 GCCAGATGCT TATGCTATTG TCCATCTGA ACATCCAGAT GCGGATTATC CTTTAAATA 5220
 TTTGCTGTAG TGTGAGTTG CTTTCAAGTT GGCTTGTGCC CTGTTAGAG AAGTGCAAGT 5280
 GGAATCTCTT GATTTGGTCG CTATTGGAACT TATTGCAGAT ATGGTGAGTC TGACGGATGA 5340
 AAATCCTATC TTAGTTCAAT ATGCTCTGGA AATGTTGGGT CATACCCAGC GCATTGCTCT 5400
 GCAAGAAATG CTGACATGG CTGGGATTGC TGCCAACGAA GTAACAGAG AAACGGTTGG 5460
 TTTCCAGATT GCTCCTCGTT TGAATGCCCT GGGTCGCTTG GATGATCCCA ATCCTGCCAT 5520
 TGATTGTTG ACTGGATTG ATGATGAGGA AGCGCATGAG ATTGCCCTTA TGATTCACCA 5580
 GAAAAACGAA GAGCGCAAGG AAATCGTTCA GTCTATCTAT GAAGAAAGCA AGACCATCGT 5640
 GGATCTGTAG AAGAAGGTT AGGTCTTGCC CAAGGAAGC TGAATCTGT GGGTCTTAGG 5700
 AATCGTGGCT GGTGTTTAT TGGAAGAATT GGGACAGCA GTCATTTGTT TTAATATAGA 5760
 AGACGGTCTG GCCAAGGCA GTGCTCGTAG TGTGGAAGCG GTGATATTT TTGAAGCTCT 5820
 GGATCCCCAT CGAGACTCT TCAITGCCCT TGGAGGTAT GCAGGTGAG CCGGTATGAC 5880
 GCTGGAAATT GAGCAACTCT CAGATTATCT TCAGGTTTG GAAGATTATG TTCGTGAAAA 5940
 AGGTGCAGAT GCTGGTGGCA AGAATAAGTT AAACCTAGAT GAAGAGTTGG ATTTGGAGGC 6000
 ACTTAGCTTG GAACGGTCA AAAGTTTGA ACCTTTAGCT CTTTGTGAA TGGATAATCA 6060

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GAAACCTATT TTTTATATCA AGAATTTTCA GGTGCGAAAGT GCTCGACTA TGGGGGCAGG	6120
TAATGCCCAT CTAAGAGCTGA AAAATTCCAA GGGTGAGGCG AGTTTGTGAAG TGGTAGCCTT	6180
TGCTCAAGGC AGATGGGCGA CAGAGTTTT CCAAACCAAG AATCTAGAGT TAGCGGTTAA	6240
ATTGTCTGTC AACCAATGGA ATGGCCAAAC TGCCCTCCAG TTGATGATGG TGGATGCGCG	6300
AGTGGGAAGGT GTTCAACTTT TTAACATTTC TGGAAAAAT GCAGTCTTGC CAGAAGGTGT	6360
TCCAGTCTTG GATTTCCTG GAGAACTGCC AATCTTGCG GCTAGTGAAG CTGTTGTGCT	6420
AAAAAACATT CCAGAGGATA TTAAGTCTGCT GAAGACCATT TTTCAGGAAC AGCATTCTTC	6480
TGCTGCTCTAT TTCAAAAATG ATATTGACAA GGCTTATTAT CTGACAGGTT ATGGGACTAG	6540
AGATCAGTTT GCCAAATTGT ACAAGACTAT TTACCAGTTC CCAGAGTTTG ATATTGCGTA	6600
CAAGCTGAAA GATTTCGCTG CATATCTTAA TATTCAACAA ATCTTGCTGG TCAAGATGAT	6660
TCAAGTATTT GAAGAACTAG GCTTTGTGAC GATAAAAGAT GGTGTGATGA CAGTCAATAA	6720
AGAGGCGCCA AAGCGGAGTA TAGGAGAAAG TCAAAATTAC CAAAATCTCA AACAAACCGT	6780
TAAAGACCAA GAAATGATGG GCGTGGGTAC GGTGCAAGAA ATTATGATT TTTTGAITGA	6840
AAAAGAGTAG AAGTTAGGAA AGAGTTGGGA AATCAACTCT TTTTGAJAA CAGACCTTCA	6900
TTTTGAAAA CATCAAAAA ATGGTATAAT GGTAGSAAA GATTCGGCTG AAGTATCAG	6960
AACTTT7AGA ATAGAGGGT AGAATTGCC TATAATCAAG ATAACTAAG ATTTTGGAGG	7020
AAAAATGAGT AATATCAGTT TAAACAACAT TGGTGGTGTG CGTGAGAATG GAAAAAATAT	7080
GTACATTGCT GAAATTGGAG AGTCCATTTT GTTPTTGAAT GTAGGGTTAA AATATCCTGA	7140
AAATGAACAA TTAGGGGTG ATGTGGTGAT TCCAAACATG GATTACCTTT TTGAAAAATG	7200
CGACCGTATT GCTGGGTTT TCTTGAACCA CGGCGATGCG GATGCCATTG GTGCTCTACC	7260
GTATCTCTTG GCAGAGGCTA AAGTTCTCTG ATTTGGGTCT GAGTTGACCA TTGAGTTGCG	7320
AAAGCTCTTT GTCAAAAGAA ATGATGCCGT TAAGAAAAAT AATGATTTC ATGTCAATGA	7380
TGAGAAATAC GAGATTGATT TTGGTGGGAC AGTGGTTTCC TTCTTCCCTA CGACTTACTC	7440
CGTTCAGAG AGTCTGGGAA TTGTCTTGAA GACATCGGAA GGAAGCATCG TTTATACAGG	7500
TGACTTCAAA TTTGACAAA CGGCTAGTGA ATCTTATGCA ACTGATTTTG CTGTTTGGC	7560
AGAGATTGGT CGTGACGCG TCC7GGCTCT CCTCAGTGAT TCGGCCAATG CAGACAGCAA	7620
TATTCAGGTG GCTAGTGAAA GTGAAGTTAG GGATGAAATT ACCCAAACTA TTGCTGACTG	7680
GGAAGTGTGT ATCATCGTTG CAGCTGTTTC CAGTAATCTT TCTCGTATTC AGCAGATTTT	7740
TGACGCTGCG GATAAAACAG GTCGACGTAT CGTCTTGACA GGATTTGATA TTGAAAAATAT	7800
CGTCCGCACA GCGATTCTGC TTAAGAAGTT GTCTTTAGCC AACGAAATTC TTTTGATFAA	7860

GCCTAAAGAT	ATGTCTCGCT	TTGAAGACCA	TGAGTTGATT	ATTCTTGAGA	CAGTCGTAT	7920
GGGTGAGCT	ATCAATGGAC	TTCTTAAGAT	GTGATTGGT	CGCCTCGTT	ATGTAGAAAT	7980
CAAGGATGGG	GACCTAGTCT	ATATTGCTAC	GGCTCCGTCT	ATTGCTAAAG	AAGCCTTTGT	8040
TGCGCGTGTG	GAAATATGA	TTTATCAGGC	AGTGGGGT	GTCAAAATGA	TTACCCAAAG	8100
TTTACATGTA	TCAGGCGACG	GAAATGTGCG	TGATTTGCAG	CTGATGATCA	ATCTTTTGCA	8160
ACCTAAGTAC	CTCTTCCCTG	TCCAAGGGGA	GTATCGTGAG	TTGGATGCTC	ACGCTAAGGC	8220
TGCCATGGCA	GTGGGATGT	TGCCAGAACG	CATCTTCATT	CCTAAAAAG	GGACGCCAT	8280
GGCTTACGAG	AATGGAGACT	TTGTTCCAGC	TGGATCGGTT	TCAGCAGGAG	ATATCTTGAT	8340
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TAGGCTCGT	GTTCACACGC	GTGGATTGT	TTATCTCAAG	AAGAGTCGGG	ATATCTCCG	8520
TGAAGTTCT	GAAFTGATTA	ACCAAACGGT	AGAAGAGTAT	CTTCMAAGAG	ATGACTTTGA	8580
CTGGCGAGAT	CTCAAGGTA	AGTTCTGTGA	CAATCTGACC	AAGTACCTCT	TTGATCAAAAC	8640
CAAGGCTCGC	CCAGCCATTT	TACCACTAGT	CATGAAGCA	AAATAATCGT	TGAATAAAAC	8700
AGAGAGAAAG	TCGAGTTTCG	GCTTTTTCTT	ATAGAAAAAT	AGAAGGAGAA	AATCATGGCA	8760
GTGATGAAA	TCAGTATTA	CTCACAACTA	TTGGATATGG	AGTGGGGGT	GAATGTCCCT	8820
TACCTCATG	CCAATCGAGT	GGAGAAGCA	GAGTGTGAAG	ATATTCCCGT	CTTGTAACCTT	8880
TTGCAOGGGA	TGCTGGAAA	TCATAATAGT	TGGCTTAAGC	GGACCAATGT	AGAACGCTTG	8940
CTTCGAGGAA	CTAATCTCAT	CGTTGTTATG	CCCAATACCA	GCAATGGTTG	GTACACCGAT	9000
ACCCAGTATG	GTTTTGACTA	CTACAAGGCT	CTAGCAGAGG	AATTGCCACA	GGTTCTGAAA	9060
CGCTTCTTCC	CTAATATGAC	GAGCAAGCGT	GAAAAGACCT	TTATCGCTGG	TCTTCTATG	9120
GGAGGCTACG	GCTGCTTCAA	ACTGGCTCTT	ACGACAAATC	GTTTTTCTCA	TGCAGCTAGT	9180
TTTTCAGGTG	CCCTCAGCTT	TCAAAACTTT	TCTCCTGAAA	GTCAAAATCT	GGGAGTCCA	9240
GGCTACTGGA	GAGGTGTTTT	TGGAGAGATT	AGAGACTGGA	CAACTAGTCC	CTATTCTCTT	9300
GAAAGTCTGG	CTAAAAATC	GGATAAAAAG	ACCAAACTTT	GGGCGTGGTG	TGGCGAACAG	9360
GATTTCTTGT	ACGAAGCCAA	TAATCTCGCA	GTGAAAAATC	TCAAAAAACT	AGGTTTTGAT	9420
GTGACCTATA	GCCATAGGCG	TGGAATCTAC	GAGTGGTACT	ACTGGGAAAA	ACAAATGGAA	9480
GTTTTTTTAA	CAACCCATCC	AATGATTTC	AAATTAGAA	AGAGACTGAC	TTAGTTTGAA	9540
CTTCAGCATA	GGGGAGTAG	AACTAAAAAT	AAATATGTTT	TCACTAGACT	TTTCAAAACG	9600

		472	
AAGTAGTAGA	ATAGTAATTA	AATACTGGAG	GAAAGAGAGT AGGAATGTGA CCGTTATCAA 9660
ATTGGCATT	CCACATTAGA	ATATGATCAG	TTTGTCAGAG AACATGAAT AGCCAATGTA 9720
TTACAAAGTA	GTGCTGGGA	GGAAGTTAAG	TCTAATTGGC AACATGAGAA GTTTGGTGTT 9780
TACAGGGAAG	AAAAATTACT	GCGACAGCT	AGTATTTTGA TTAGAATCT TCOCGTAGG 9840
TATAAAAATGT	TTTACATCCC	AAGAGGAGCT	ATATTGGATT ATGGGATAA AGAACTCTTG 9900
AATTTTGCCA	TTCACTCTAT	TAAGTCCTAT	GCTCGCAGTA AGAGAGCGGT TTTTGTGACT 9960
TTTGACCCAA	GTATTTCCT	ATCTCAAAGT	TTAATCAATC AGGAAAGAC AGAATTTCT 10020
GAAATCTGG	CTATTATTGA	TAGTTTGCAA	CAATGGGAG TAAGGTGGTC AGGAAAAAG 10080
GAGGAAATGG	GAGACACCAT	TCAACCTCGT	ATTCAGGCGA AAATATACAA GGAAATTTT 10140
GAAGAAGATA	AACTTTCCAA	GTCAACRAAA	CAGGCTATTG GAACAGCAG AAACAAAGGG 10200
CTTGAGATT	AATAGTGGT	ACTGGAACTA	TTAGATTCAAT TTTCGGAGTT GATGAAAAA 10260
ACTGAGAGC	GAAAGAGAT	TCATTTGAGG	AATGAAGCCT ATTATAAAA ATTGTTAGAT 10320
AATTTTAAGG	ACAAGGCCAT	TATCACCTTG	GCCACCTTGG ATGTTTCTAA ACGTTCGCAA 10380
GAGTTAGAAG	AACAGTTAGC	GAAAAATAGA	GCCTTGGAG AGACCTTTAC TGAGTCGACT 10440
CGAATCTCA	AAGTAGAAG	GCAGAGAAG	GAAAAAGAAC GTTTGTTAGA GGAATTGACC 10500
TTCTTCGAGG	AATATATAGA	TGTAGTCTAA	GCGAGAGTTC CTTTAGCGGC TACTTTGAGT 10560
TTGGAATTTG	GTACTACCTC	TGTCAATATA	TATGCTGTGA TGGATCATGA TTTTAAACGT 10620
TACAATGCAC	CAATTTTAAC	TTGGTATGAA	ACGGCTCGCT ATGCCTTTGA ACGAGGTATG 10680
ATCTGCGAAA	ATTTAGGTGG	TGTTGAAAAC	TCTCTCAATG GTGCACTTTA TCAITTTAAG 10740
GAAAAATTTA	ATCCAACGAT	TGAAGAATAC	TTGGGTGAAT TTACAATGCC CACTCATCCT 10800
CTCTATCCTC	TGTTAAGACT	TGCTCTTGAT	TTCCGTAAAA CATTAAGAAA AAAACATAGA 10860
AAGTAAGTAT	ATGGCACTAA	CAACACTCAC	GAAAGAGAG TTTCAGACTT ATTCGTATCA 10920
GGTTTCTCT	CGTTCCCTTA	TGCAATCTGT	CCAGATGGGG GATTTTGCTAG AAAAAAGAGG 10980
GGCTCGAAT	GTATTCTCTG	CTTTGAAACA	AGAAGGAGAA ATTCAAGTTG CAGCTCTGGT 11040
TTATAGCCTG	CCCATCTCGT	GTGGTCTGCA	TATGGAACTC AATTCGGGGC CGATTATATC 11100
CCAACAGAGT	GCTCTTCAG	TTTTTTATGC	AGAGTTAAAA GAATATGCCA AGCAAAATAG 11160
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TCCAATAGAT	GCTGAGAAAA	AAAGTATTAT	TCAAGATTGG ACTGATTAG GTTATCAATT 11280
TGATGGCTTA	ACAACAGGTT	ACCAGGTGG	AGAACCAGAT TGGTTATACT ATAAAGATTT 11340
AACGTGAATTA	ACTGAAAAGA	GTTTGCTTAA	AAGTTTATAG AAAAAAGGTA AACCTTTGGT 11400

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ATATTATGAG CATTTTATG ATACTTTTGG AGAACAAAGG GAGTTTCTCA TAGCAAGCTT	11580
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GAGAGAATAT TCTAGTCAAT TTGAACGTT TGAAGTTCGA AAAGCAGAGG CGCGAGACTT	11760
GATTGAAAAA TATGGAGAAG AAGATATTGT TTTAGCTGGG AGTTTATTTG TTTATATGCC	11820
TCAGGAACG ACTTATCTCT TTAGTGGTTC CTACACTGAG TTTAATAAGT TCTATGCCCC	11880
TGCACTGCTT CAAAAATATG TTATGTTGGA AAGCATAAAA CGTGAATAC CTAATACAA	11940
CTTCCTAGGC ATTCAAGGGA TTTTGTATGG AAGTGATGGT GTTTTTCGTT TTAACAGAA	12000
TTTTAATGGC TATATGTGAC GCAAGCAGG TACTTTCCTT TACCATCCAT CGCCTTTAAA	12060
ATACAAAGCT ATCCAGTTAC TCAAAAAAAT AGTAGGACGT TAAGATGAAA AAGTCAGTAT	12120
TTAGATTCTT TTAGCTTCTT TTTAGTAAAA TAATCTTAT TTGCTAGAAA GGTGGAGAGA	12180
CATCGCTGG CTTTTCTGT TGATAGGGG TTTCTTTCTT TTTGTGTGGC GTTTTPTTTG	12240
GGCTCTGGTT TGGATAGTTG TGCTCTTATG TGTGCTTGCT TTCGGACTTC TCTGGTATCT	12300
GAAAGGAGAT TTTCAGGAG CGCTAAAGCA AGCAGAACGG TCAGTAAAAA TTGCTCAACA	12360
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ATTCTTGTCC GTAACGGTGC GGTGAATCA TTAATTATTG TCCAATCCAT ACTATGGCTA	12720
CTCCTATGAA GCGCTTGTCC ATACGGCAGA ACATGAGTTA GGTATGCGA TTGGCTTGG	12780
CCATACAGAT GAGAAGTCTG TCATGCAACC AGCAGTTCC TTTTATGGTA TCCAGGAAGA	12840
GGATGTTGCA AACCTCCGAA AAATATATGA GACTAGTGAG TAGGGTACTA TCTTTCCCTA	12900
CTTTTCTTGC TATATGGGAA CTATGAACAA CTGTATTAAA TCAAACTAG AGCTCTTGCC	12960
GACCAAGCCCT GGTGTGTACA TTCAATAGGA TAAAAATGGC ACCATATCTT ATGTAGGAAA	13020
GGCTAAAAAT CTGCGTAATC GAGTACGGTC CTATTTTCGT GGAAGTCATG ATACCAAGAC	13080
AGAGGCTCTG GTGTCTGAAA TTGTGGATT TGAATTTAT GTTACCGAGT CTAATATG	13140

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GGCACTTCTC CTAGAAATCA ACCTGATCAA GGAAACAAG CCCAAGTACA ATATCATGCT	13200
CAAGGATGAC AAGTCTTATC TTCTCATCAA AATCACCAGT GAGCGCTATC CAGCGTTGAT	13260
TATCACTCGT CAGGTCAAAA AGGACGGAGG TCTTTATTTT GGACCCATAC CCGATGTGGG	13320
GGCAGCAAT GAAATCAAGC GGTGTCTGGA TCGGATATTC CCTTTTCGTA AGTGTACCAA	13380
CCCGCCCTCT AAGGTCTGTT TTTATPACCA TATCGGCCAG TGTATGGCCC ACACCATCTG	13440
TAAGAAGGAT GAGGCTTATT TCAAGTCTAT GGCCACGAG GTGTCTGATT TTCTGAAAAG	13500
TCAGGATGAC AATAATCATCG ATGATCTCAA GAGTAAATG GCAGTAGCAG CACAAAGTAT	13560
GGAGTTTGAA CGTGGGCGG AATACCGTGA CTTGATTCAG GCTATTGGAA CGCTTCGAAC	13620
CAAGCAACGG GTCATGSCGA AAGATTTCGA AATCGCGAT GTCTTTGGCT ACTATGTGGA	13680
TAAGGGCTGG ATGTGTGTGC AGGTTTCTTT TGTCCGTGAG GLAAGCTCAT CGAGGCGGAT	13740
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TTCTATCAAG AAAATCTCA TCTAGTTCCC AATGAGGTAC TGATTCCGCA GATATTGACG	13860
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AAATCCCGAC CCCAGTACGT ATCGAGTCCCT TCGATAACTC TAAATATCATG GGAATCTGCC	14100
CTGTTCTGGC TATGGTGTGC TTTGTCAAAG GTAACCGAG TAAGAAGGAT TACCGTAAAT	14160
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GTCTCAGCGC CAAATGACTT AGTCCGCCCTG CTAAAGGACC TTCTATACAG AGCAAGTGT	14940

CGAGGCAATT GGGATGATCG TGTCTTGAG GCTTTAGATG GSCAATATGG CTTAGAAGAC 15000
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 GTTCAAGC AGTTGCTCTG TTATGGAGT CAAGGGCAAC AAATCATCAA TCCAGGGTCG 15300
 ATTGGCATGC CCTATTTTAA TTGGGAGGCG TTAATAAATC ACCGTTCCCA GTATGCCGTG 15360
 ATAGAAGTTG AAGATGGGA ATTAATCAAT ATCCAATTTG GTAAAGTTGC TTATGATTAC 15420
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 GAGATTGATC TGGGAGGFAA GAACCACTA GATAGGTAAT GCTGAGTTTT TCAAGGGTTC 15840
 GGTCTTGATA GAGTTCTTTG AGCGCTTTAT CAATTTGCTC TTAAACTCT TTTTGTGCTC 15900
 TTGAGAAAT GATATAATTG CTGGGGCTAT CTGCAGAGAA TAAATCAACG ACTGAGAGGT 15960
 CTAARCCAG GTCTTTGATA ATCTTTTGAA CGGATACCTT GTCAAAAATC AGGAATCAA 16020
 ACTCTCCGTT AGCAAGGCTT AGGATTCGTT TACCAATATC CTCACCAAG AAATTAATTG 16080
 TAGCGGAGTT ATCAGTGTGT TTCTGATTCC AGTTATTGAT GAATTAGCG TTAGAAGTTC 16140
 CGGTATCCTC TTGTGTGTGT TTACCAAGCA TCTGTCTAAG AGAAGTCAA GGATTTTTCT 16200
 TGTGCTGAC AAGGACGAGG GGATTGTTGG AAATTGGAAG CGAGTAAAG TATTTTTCAG 16260
 CACGCTCTTT TGTGTAATCT AAGTATATGG CGCAGCCTG ATAGTGACCA GAATCAAGTC 16320
 CTGGGAAGAT GCTCTCCGAG CGGTTCTTT GGAATTGAAT CTCGTAGTCG CTGAGTTTTT 16380
 CATCTACTGC CTTTAAAACT TCGATATCAA AGCCTGTGAG ATTGCGCTTG TCTCTGATG 16440
 CAAATGGTGG CACGTGCCCA GCTGTAGCAA GGAGGATGTT CTTTGTAGCG CTAGTCTCTT 16500
 TGGGTGTAGC TTGATCTCA CAGGCAACCA AAAATGGTAG GATAGCTAGT AATAGGCTAA 16560
 ATTTTTCAT ACTGCTCCA TTCAAATGTA AAG 16593

(2) INFORMATION FOR SEQ ID NO: 53:

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- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 3510 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 53:

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GGGATATCCT TATATCCTTG TTCCTGGAAC CATGTGCGGA ATTGCTCAAC AGTTTTTTCA      60
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AGTTCCATCA ACTCTGGCAT ACTTTTCTTG CATGGACCAC ACCATGAAGC CCAAACTTC      180
AAGTAAACCT TTTTACCCTT AAAATCAGAT AACITTAAGT CTTTGCCATC CATGGATTGC      240
AATGTGAAGT CTGGAGCATC TTTTCCAAAC GCAATTTGTT GTACAGTCGT TTGTTGTTTT      300
GGCTGTGTG CTGCTTGAAT CTTTTITAGTT TCTTCCTCAC CACAGGCCAT CAATACAACT      360
AATGACAAGA GACTTAAGCC AGCAACATT ACTTTTTTCA TTGTCTCC TTTATTCAAA      420
AATTCACGCT AGAACATTTA CTTGTCCTAA TAGTAACAAA ATTCCCATTA AAACAATGAG      480
GAAACCACCA ATTTTCTTTA GTAGCATCAT ATGACGCTTG ATTTTACTAA AATATGGCAT      540
GACTAGACCT GAAGCTAGTG CCAATACCAA GAAAGGAAGG GCCATGCCaG AGTGTAATG      600
AGAGTATAAA TCGCTCCTTG CCAAGCGCCA TTGCCCTCCAG AAGCCGCAAG TGCTAAAACA      660
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CAGAGAACCT TTCTCCCAA CAAAGAAAAG CTTTTGCAC TTTCTTGATC ATCCAAATAA      1020
ATCCCAGCAT AGACTGGCAG AAGAGGAAAA ATACAAGGAG AAAAAAGGA TAAACACCT      1080
GCTAGAAAAA CAGAGATTAA AAATCATATC GTTTCCAATA AAGAACCAC TTTCTTATA      1140
ATTCTAATCC TATTTTACTA TATTCATTTT TATTTGAAG CTTTCTGCTA CGCAAAATCG      1200
TATCGGGCAC TATGGACCA ATCTTTTCTT TTGCTAGTCA AGGCGATCT TATCCCCCAA      1260
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TTAGTCTGA CAFTTCATAA ATCATGTTTT ACTTGAGTTT GTCAAGGATT GCTTTAAGCT      1380
CCTCTACTAG TTTAGTTTCT GTCTCTGCTG AGCCATTTTC TTCTTTCAAG AATCAAGGG      1440
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GCTGTCCTAG AACCTTGATC AATFCCGTGC TTAAFTGCTG GATTTCGTAC TCTTCTTAC	1560
GGCGAATCAG CCAGAAAGGCA ATCACGCCFA GGAGGGCAAG TAGACTGACC ACAATCAGTC	1620
CTGCCGGAAC TGAGTTTGGT TCAGTCATCT TATCTGAATC CTTACTATCT TCCGTTCCCT	1680
GTTTTCGATC CTCTCTGTCC TGTGACAGGT TGTGTCGCT AGCATTTGCT TTCACATCTT	1740
TGAGAGAGTC CAAGGCAGCC CAGCCCTCAC AGACTCTACT GCAGTATGCA GACCTTACTC	1800
TGTCAAGGCA CTATCTTCCG GAGCTTTTTC AGCATCTAGG AGGACAGCCT TGGTTGCATC	1860
GTTTTTCGGA TCAGACTGTC TTGCCAAAGC TTTCAGCGT TGGTCTAACT CTGACTCAA	1920
GGCAGCAAGT TCAGACTGCT CAACTTGTCT TTGAGCTGT GTGCTCGTTG AGCTAGCCGA	1980
AGCGCTTGCT ACCACTCTAG GATCTTGAGT CGGAGCTGAG CTTGGAGCTG GGACAGGGCT	2040
TGCAGGTTGA CTAGGAACAG TTAGGTATTA TTGAAACTAG AATAGTACAT ATGGACTTCT	2100
AAAACATGTT TAGAATTCGA TTTTACTGTC CTCATCGATT TGTCCFATTC TTATTTCAAT	2160
TTACTATAAT AACCGATGGT GTGGTTAATG TTGGTAAAGAG AAACCTCTGA AACCAAGCTT	2220
CAAAAAAGTC GCTGTCATC GTCTCTTCGT AAGTCATGAG AGCGATTAAAT TCACCATTTG	2280
TTAGACCTGC AACCAAGAA ATCTCTGTAG ATCTTCTTCC AGATACCTTG CCTCTTATTA	2340
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TCATGATTAA CAGTCATGCG CTACTACCAA CTGAGCTATG GCGGATTAAA GCTAAGCGAC	3000
TTCTCTATCT CACAGGGGGC AACCCTCCAC TACTTCCGCC GTTCTAGGCC TTAACCTCTG	3060
TGTTCCGCAAT GGGTACAGGT GTATCTCTTA GGCTATCGTC ACTTAACCTCT GAGTAATACC	3120
TACTCAAAAT TGAATATCTA TTCAATTTAA GAAAACCGTT CGCTTTCATA TTCTCAGTTA	3180
CTTTGGATAA GTCTTCGAGC TATTAGTATT AGTCCGCTAC ATGTGTGCCC ACACCTCCAC	3240

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TTCTAACCTA TCTACCTGAT CATCTCTCAG GCGCTTACT GATATATAAT CATGGGAAAT 3300
 CTCATCTTGA GGTGGKtLCA CACTTAGATG CTTTCAGCGT TATATCCCTC CTACATAGC 3360
 TACCCAGCGA TGCCCTTGGC AAGACAACTG GTACACCAGC GGTAAGTCCA CTCTGGCTCT 3420
 TCGTACTAG GAGCAGATCC TCTCAAATTT CCTACGCCCG CGACGAGTAG GGACCGAACT 3480
 GTCTCACGAC GTTCTGAACC CAGCTCGCGT 3510

(2) INFORMATION FOR SEQ ID NO: 54:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20986 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 54:

CGAGAGAAAA CATGGCTAAG TCAAACCTTG AAAAAGTAGA ATCATGTGTT GGCTGGGTTT 60
 GTGATAAGAA AATCACAGGC TACCGTATCT CTAAGAAAC GAATGCGGT GAAATGTCTA 120
 TCATTTGCTCT GCGCAGGGT COTGCAAAAG TAAAAATAT TTCATTTGAA ACAGCCCTAG 180
 GCCTAATTGA TTCTATGAA AAAAATTATG AAAAATTGA AGATTAACT TTGATAACG 240
 GCGGATTTCT GACCTTCAAG TAGTAGAGAT AGAGAACTG CTTTTCATT TTGAGGACAG 300
 CAAAAAGACT GCACGGTTGA TGCAGCCTTT TCTTTTATT TGAGATAGCG TTGAAGGAAC 360
 TCTTTTGTTT GGTCTCTTTT AGGATTGGTG AAGAGGCTTT CTGGTTTACC TTCTTCAGCG 420
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 TGGGTTACGA CAATCATGCT CAAGCCTTCC TGAGCCAGGT CCTGCATGAT TTGAGGACT 540
 TCTCCAACCA TTCTGGATC GAGAGCTGAT GTTGGTTTAT CAAAGGAAT AGCGTCCGGA 600
 TTCATGGAGA GGGCACGAGC GATGGCCACA CGTTGTTTTT GACCACCTGA GAGTTGTTTT 660
 GGTTTGGCTT GCCATAGCG TTCTCCCATG CCGACCTTTT CCAGGTTTTC TTTGGCAATC 720
 TTTTCAGCTT CTGTGCGTTC GCGTTTTAGG ACAATGTGCT GAGCGACGAT TGTGTTTCA 780
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 TCAAACTCTC CGTTTGCAAT TGGTAGCAC CTGTAGTGA GGTATCCATG TCCATTCTGC 1140

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AAAGTTCGAC	AACAGAGATA	ACGTTCAATA	CAGATGTATC	TTTGATATTG	ATGACAAATT	1320
CATTACCAGT	TTCAGGTAGG	ATGTTACGGA	CTACCTGAGG	TAGGACAATC	TTACGCATGG	1380
TCGTGTTATG	GGTCATACCA	AGAGCAGTCG	CAGCTTCAAA	TTGTCCCTTG	TCAACTGCTA	1440
GGATACCACC	ACGGACGATT	TCAGTCATGT	ATGCACCGGT	ATTGATTGAA	ACGATGAAGA	1500
TAGCAGCCAG	TGTACGGTCA	AGGTTGATCC	CGAAAGCTTG	GGCAGTTCCA	TAGTAGATAA	1560
CCATCGATTG	AACAATCATT	GGCGTACCAC	GGAAAAATTC	AATGTAGACA	TTGAGAACCC	1620
AGCGACTAG	TTTTGTAGG	CGTAAATGA	CTTTGTTTTT	AGAGAGAGGA	GCAGTACOGA	1680
AGACACCAAT	GGCAAGTCCA	ATAATGAGAC	CTATGATGGT	TCCGACGATA	GAGATTAAAA	1740
GAGTGATACC	AGCACCAAGC	AAGAGTTGTT	GCCAGTTTTT	AGAAAGAATT	TTAGCAACTT	1800
GGCTAAAGAA	ACTACTGCTA	GTCTCTTCAG	TTGTTGTAGC	TTCCGCAGGT	TGTTCTTTGA	1860
TCATACGATC	CATCAAGGCA	ACTTGGTCAT	CTTTTGAAT	GGTTTCAATG	CTGGCAATTGA	1920
TTTGGCTAAT	ACGATTGTCA	TTTTTACGAA	GCCCGATAGC	GATAGCTGTA	TCTTCTTCCC	1980
CAGTTTTTGA	ACCAGGTTCT	ACTTGAATCA	TCTTGAACCT	AGAGTTCGCA	GCTTCAGCAG	2040
TCAGTGCTTC	TGGACGTTCA	GAACATAAG	CATCAATGAC	ACCAGCCTCA	AGAGCTTGTG	2100
GCATTGTAGC	GAAGTCTCCC	ATGGCTGTTT	CTTTTTTACG	ACCTGGGATT	TGTGCAATCA	2160
AGTTATAAAG	GTAGACCCCT	TGTTGAGAAG	TGATTTTTGC	ACCGTTAAAG	TCATCCAAAG	2220
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AACTGCTCGA	AAAGGCAATT	TCTTGTTCG	GTCTGCAGT	TGGACTCATA	CCTGOGATAA	2340
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CCAAAGGTTT	TTTACCTAAG	TCCTTAGCGA	TTTTCTTGCG	GATTTGAACA	TCGTATCCGT	2460
TGGCATACTG	ATTGCTCCCA	TCGATTTTGA	CAGCTCGGTT	GCTATCATCA	TCCTGGGTCC	2520
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AAAAAGGGGG	CTTAGTTGAT	GAAAAAACTT	TTTTCTTAC	TGGTGTAGG	CTTGTTTTGC	2820
CTTCTTCCAC	TCTCTGTTT	TGCCATTGAT	TTCAGATAAA	ACTCTTATCA	AGGGGATTTG	2880

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GACTTTTAAGG GCCAAATCGT GGGACTTGGG CGTGCTGGTA AGATGCCTAG CGGGTTTGAC	3000
ATTGACCTC ATCCAAAGAT TCAGGCCGCG AAAACGGTG CAGAACTAGC AGATGTGACT	3060
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GGCGACATAG TTGAAGTTGA CCTCGTCTGG AACTTAAAA ATTTACTTTT CCTTTATGAT	3180
GATATCGCTG AATTAAATG GCAACCTCTG ACAGATAGTT CAGAGTCTAT TGAAAAGTTT	3240
GAATTTTATG TAAGGGGAGA CAAGGGGGCT GAAAACTCT TTTTCCATAC AGGGAATCTT	3300
TTTAGAGAGG GAACGATTGA AAAGAGTAAC CTGTATTATA CTATCCGTTT AGACAACTCT	3360
CCGGCTAAGC GTGGAGTTGA GTTGATGCCC TATTGGCCTC GGACCGATTT TGCTAGCGCT	3420
AGGGATCAGG GATTGAAAGG GAATCGTTTA GAAGAGTTTA ATAAGATAGA AGACTCGATT	3480
GTGAGAGAA AAGATCAGAG TAAACAACCT GTTACTTGGG TCCTCCCTTC GATCCTTTCC	3540
ATCTCCTTGT TATTGAGTGT CTGCTTCTAT TTTATTATA GAAGAAGAC CACTCCTTCA	3600
GTCAAATATG CCAAAAATCA TCTGCTCTAT GAACCAACCA TCGAATTAGA GCCTATGGTT	3660
TTATCAGAAG CAGTCTACTC GACCTCCTTG GAGGAAGTGA GTCCCTTGGT CAAGGGAGCT	3720
GGAAAAATCA CCTTTGATCA ACTTATTCAG GCTACCTTGC TAGATGTGAT AGACCGTGGG	3780
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TTGTCAAGCT TTGAGAAAGA CTGCCATAAT CTAGCTTTTT CAGGTAAAA AGAAGAAACT	3900
CTTTCCAATT TGTTTCCGGA TTACAAGGTA TCTGATAGTC TTTATCGTAG AGCCAAAGTT	3960
TCTGATGAAA AACCGATTCA AGCAAGAGGG CTCAACTCA AATCTTCTTT TGAAGAGGTA	4020
TTGAACCAGA TGCAAGAAGG AGTGAGAAAA CGAGTTTCTT TCTGGGGGCT CCCAGATTAT	4080
TATCGTCTCT TAACTGGTGG GGAAGAGGCC TTGCAAGTGG GTATGGGTGC CTGACTATC	4140
CTGCCCTCTT TATCGGATT TGGTTTGTTC TTGTACAGTT TAGACCTTCA TGGCTATCTT	4200
TACCTCCCTT TGCCAATACT TGGTTTCTA GGGTTAGTTT TGTCTGTTTT CTATTATGG	4260
AAGCTTCGAC TAGATAATCG TGATGGTGT CTAAATGAAG CGGGAGCTGA GGTCTACTAT	4320
CTCTGGACCA GTTTTGAJAA TATGTTGCTT GAGATTGCAC GATTGGATCA GGCTGAACCTG	4380
GAAGATATTG TGGTCTGGAA TCGCCTCTTG GTCTATGCGA CCTTATTGG CTATGCGGAG	4440
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TATGTAGCTT ATGGCTGGCA CAGTACGTTT TATCATTCAG CAGCACAAAT GAGCCATAT	4560
GCTAGTGTG CAAATACAGC AAGCACCTAC TCTGTATCTT CTGGAGGTGG AAGTCTGGT	4620
GGTGGCTTCT CTGGAGGCGG AGGTGGCGGC AGTATCGGTG CCTTTTAAAG AGAGCTACCA	4680

TAGACTGAAA	AAGTATGATA	TAA7GGAAGA	TAGAAAAAAG	ACAAACTATA	AGAAAAAGTCA	4740
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CGGCAAAAAG	CCCTTGAAAA	AGTCCATT7T	TTCAAAGGTA	ATCCTGTGTT	AATT7CAGAA	4860
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GATAAGTTTT	TTTGCAAGGT	GGATGATGGC	TACAT7GTAA	TG7TTTCCCT	ATTCTAACTT	4980
AGTCTTAAGA	TAGGCC7TAG	AAGCAGGTGA	AAAGCGAGGG	CATGCT7TGG	CAGCT7GTAT	5040
GAGTGGCCAC	CGCAGATGAG	GGGAACCCCG	TTTGACCA7T	CT7CCAGCTA	AATCAATCTG	5100
ACCTGACTGA	TAAATAGAAG	AATCCAGTCC	AGCGAAAGCT	TGTAAT7GAG	CAGGATTATC	5160
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GTAACCGTCG	TGATGACCGA	GTTGAACTCA	GCCATCGAGT	CATTGATACA	TG7TTCCGCC	5280
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ATTCTATCA	GCTTATCAAA	TCTTGCC7TA	ATCCT7TTTCT	GAGGATTAGG	GTAGCG7TGC	5460
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GAGCGATGAG	ACAGTCT7TG	TTGATCTGTC	GAATGACAGC	ATCTAAGAGT	TCAAAACCG	5880
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TAAACATCGTG	TTTATT7TTTA	GGGATATCAA	TGCCTACATA	AAGCATGGGA	GTACCTCCAG	6000
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CCTTTCCGAA	ATCGTCAAGC	GATTGGAGGA	AATGAAC7TA	TCCATAG7GG	CT7ATTCCAA	6180
GTA7ATCCACT	TGGGCT7TGG	CAGTAGCTAA	CTGCGCTAAA	TATAATATAG	GGAGTAATCT	6240
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CAACAATGGC	TAAAGACGGA	TATGGTGAAA	TGAGCTGTAT	CTCATGCTGT	GTGTCTCCAC	9900
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TTCTTAAAGC CCTCTTACT GGTTTGAATG GTGGTTACGA CGATGTTTAC AAAGACTACA	10020
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AATGAACCTA	TTCTCCAAA	GAGAGAATAT	CCTCGAACTG	GTGGTATCGG	AATGTTGCCA	17280
TTCTATCTGA	TAGGTTGCAT	GATGATGGGA	CGAGTTCTAT	TATACACACG	GAAACATCCG	17340
TAAAGTGTAG	AAATGATAAT	ATCTATGTTT	TGAACGATAC	TTTTAAGAAG	TAGCACTCAA	17400
GAAGAGATTT	AAGTTTACTT	GCTGAAACCT	GTTTTATTTC	TAACTAAACT	ATCATTGAAA	17460
GGGAGAGATG	TTTTCGAAAC	TTGCACAGAA	AAAGGATTAT	TATTGTCATG	TGTAATTTCAT	17520
TACATTGCTC	ACAGTTGATT	TTAAGAGATA	TGAATAAGGA	GAAATCATGA	AATCAATCAA	17580
CAAAATTTTA	ACAATGCTTG	CTGCCCTTAT	ACTGACAGCG	AGTAGCCTGT	TTTCAGCTGC	17640
AACAGTTTTT	CGCGCTGGGA	CGACAACAAC	ATCTGTTTACC	GTTTCATAAC	TATTGGCAAC	17700
AGATGGGGAT	ATGGATAAAA	TTGCAATGA	GTTAGAAACA	GTTAACTATG	CTGGTAATTA	17760
AGTGGGTGTT	CTACTGCAA	ATGCAAAAGA	AATGCGCGGT	GTTATGTTCG	TTTGGACAAA	17820
TACTAATAAT	GAAATTTATT	ATGAAAATGG	CCAAACTCTA	GGAGTGAATA	TTGATCCACA	17880
AACATTTAAA	CTCTCAGGGG	CAATGCCGGC	AACGCAATG	AAAAAATTAA	CAGAACTGTA	17940
AGGAGCTAAA	TTTAACACGG	CAAATTTACC	AGCTGCTAAG	TATAAAATTT	ATGAAATTCA	18000
CAGTTTATCA	ACITATGTCG	GTGAAGATGG	AGCAACCTTA	ACAGGTTCTA	AAGCAGTTCC	18060
AATTGAAATT	GAATTTACCAT	TGAACGATGT	TGTGGATGCG	CATGTGTATC	CAAAAAATAC	18120
AGAAGCAAAG	CCAAAAATTG	ATAAGATT	CAAAGGTAAA	GCAATCCAG	ATACACCACG	18180
TGTAGATAAA	GATACACCTG	TGAACCACCA	AGTTGGAGAT	GTTGTAGAGT	ACGAAATTTG	18240
TACAAAAATT	CCAGCACTTG	CTAATTATGC	AACAGCAAAC	TGGAGCGATA	GAATGACTGA	18300
AGGTTTGCCA	TTCAACAAAG	GTACAGTGAA	AGTAAGTGT	GATGATGTTG	CAC TTGAAGC	18360
AGGTGATTAT	GCTCTAACAG	AAGTAGCAAC	TGGTTTGTAT	TTGAAATTAA	CAGATGCTGG	18420
TTTAGCTAAA	GTGAATGACC	AAAACGCTGA	AAAACTGTG	AAAATCACTT	ATTTCGGCAAC	18480
ATTGAATGAC	AAAGCAATTG	TAGAAGTACC	AGAACTTAAT	GATGTAAACT	TTAACTATTG	18540
TAAATAATCCA	GATCAAGGGA	ATACTCCAAA	GCGGAATAAG	CCAAATGAAA	ACGGGATTTT	18600
GACATTGACC	AAGACATGGG	TTGATGCTAC	AGGTGCACCA	ATTCGCGCTG	GAGCTGAAGC	18660
AACGTTGCGAT	TTTGTTAATG	CTCAGACTGG	TAAAGTTGTA	CAAACTGTAA	CTTTGACAAC	18720
AGACAAAAAT	ACAGTTACTG	TTAACGGATT	GGATAAAAAT	ACAGAAATATA	AATTCGTTGA	18780
ACGTAGTATA	AAAGGATATT	CAGCAGATTA	TCAAGAAATC	ACTACAGCTG	GAGAAATTGC	18840

TGTCAGAAC	TGGAAGACG	AAAATCCAA	ACCACCTTGAT	CCAACAGAGC	CAAAAGTTGT	18900
TACATATGTT	AAAAAGTTTG	TCAAAGTTAA	TGATAAAGAT	AATCGTTTAG	CTGGGGCAGA	18960
ATTGTATATT	GCAAAATGCTG	ATAATGCTGG	TCAATATTTA	GCACGTAAAG	CAGATAAAGT	19020
GAGTCAAGAA	GAGAAGCAGT	TGGTTGTTAC	AACAAAGGAT	GCTTTAGATA	GAGCAGTTGC	19080
TGCTTATAAC	GCTCTTACTG	CACAACAACA	AACTCAGCAA	GAAGAAGAGA	AAGTTGACAA	19140
AGCTCAAGCT	GCTTATAATG	CTGCTGTGAT	TGCTGCCAAC	AATGCATTTG	AATGGGTGGC	19200
AGATAAGGAC	AATGAAAAAT	TTGTGAAATT	AGTTTCTGAT	GCACAAGGTC	GCTTTGAAAT	19260
TACAGGCTTT	CTTGACAGTA	CATATTACTT	AGAAGAAACA	AAACAGCTTG	CTGTTTATGC	19320
ATTACTAACT	AGCCGTCAGA	AATTGGAAGT	CACTGCAACT	TCTTATTTCAG	CGACTGGACA	19380
AGGCATTGAG	TATACTGCTG	GTTCAAGTAA	AGATGACGCT	ACAAAAGTAG	TCAACAAAAA	19440
AATCACTATC	CCACAACCG	GTGGTATTGG	TACAATTATC	TTTGCTGTAG	CGGGGGCTGC	19500
GATTATGGGT	ATTGCAGTGT	ACGCATATGT	TAAAAACAAC	AAAGATGAGG	ATCAACTTGC	19560
TTAAGTAAGA	GAGAAAGGAG	CCATTGATGA	CAATGCAGAA	AATGCAGAAA	ATGATTAGTC	19620
GTATCTTCTT	TGTTATGGCT	CTGTGTTTTT	CTCTTGATATG	GGGTGCACAT	GCAGTCCAA	19680
CGCAAGAGA	TCACACGTTG	GTCTTGCAAT	TGGAGAACTA	TCAGGAGGTG	GTTAGTCAAT	19740
TGCTATCTCG	TGATGGTCAT	CGGTTGCAAG	TATGGAGATT	GGATGATTCTG	TATTCTCTATG	19800
ATGATCGGGT	GCAAAATTGTA	AGAGACTTGC	ATTCGTGGGA	TGAGAATAAA	CTTTCTTCTT	19860
TCAAAAAGAC	TTGCTTTGAG	ATGACCTTCC	TTGAGAACTA	GATTGAAGTA	TCTCATATTC	19920
CAAAATGCTCT	TTACTATGTT	CGCTCTATTA	TCCAGACGGA	TGCGGTTTCT	TATCCAGCTG	19980
AAATTTCTTTT	TGAATGACA	GATCAAAACG	TAGAGCCTTT	GCTCATTTGTA	CGCAAAAAA	20040
CAGATACAA	GACACAAAG	GTGAAGCTGA	TAAAGGTGGA	TCAAGACCAC	AATCGCTTGG	20100
AGGGGTCTCG	CTTTAAATTG	GTATCAGTAG	CAAGAGATGT	TTCTGAAAAA	GAGGTTCCTT	20160
TGATTTGAGA	ATACCGTTAC	AGTTCTCTCTG	GTCAAGTAGG	GAGAACTCTC	TATACATGATA	20220
AAATGAGAGA	GATTTTGTG	ACAAATCTTC	CTCTTGGGAA	CTATCGTTTC	AAGGAGGTGG	20280
AGCCACTGGC	AGGCTATGCT	GTTACGACGC	TGGATACGGA	TGTCCAGCTG	GTAGATCATC	20340
AGCTGTGTAC	GATTAACGGT	GTCATACAGA	AATTAACCAAG	TGGCAATGTT	GACTTTATGA	20400
AGGTGGATGG	TCGACCAATT	ACCTCTCTTC	AAGGGGCAAT	GTTCAAAGTC	ATGAAGAGAG	20460
AAAGGGGACA	CTATATCTCT	GTCTCTTCAA	ATGGTAAGGA	AGTAGTTGTA	ACATCAGGGA	20520
AAGATGGTCG	TTTCCGAGTG	GAAGGCTTAG	AGTATGGGAC	ATATATTATTA	TGGGAGCTCC	20580

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AAAGTCCCAAC TGGTTATGTT CAATTAACAT CGCCTGTTTC CTTTACAATC GGGAAAGATA	20640
CTCGTAAGGA ACTGGTAACA GTGGTTAAJA ATAACAAAGC ACCACGGATT GATGTGCCAG	20700
ATACAGGGGA AGAAACCCCT GTATATCTGT ATGCTTGTTG CCATTTTGTG GTTTGGTAGT	20760
GGTTATTGTC TTACGAAAA ACCAATAAC TGATATTCAA TGTACATCAT TATGAATAGG	20820
ATAGCAGGCT GAAGGGAAGA CCAGAGTACT CTGAGGTGAT GTTAATCAGG AATCATGGTG	20880
ATGTGGCATG AATCATCAAT AACGGATATG AGGCTGGGCA GATTGTGCCA GCCTCATTGT	20940
GGGTATTGTG TTGTAAAAAG ATAGGACTGG TCTGGTAATC ATTTTA	20986

(2) INFORMATION FOR SEQ ID NO: 55:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 21040 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 55:

CCCAGCAAA AGCCATCCGA AGATGACTTT TTTGCTATTT AATTTCTGTA TAAGTTACTT	60
CCAAGCCAGC CTTAAGAGCT GAGCAGTTGG CAATTTTTTC TGCCCATPTT ACTAGATPTT	120
GATAACTTGA GGCATCCAAG AATTTTGCAG AACCTTGGTA AAGATTTCCT TGACTAACT	180
GTCCATACCA AGACCAGATA GCAATATCTG CAATCGTATA GTCATTGCTT GCAATATAAG	240
GTTTCTGAGC CAATTCCTTA TCCAATAAAT CCAACTGGCG TTTCACTTCC ATCGTAAJAC	300
GGTTAATAGG ATATTCCAAT TTTTCAGGAG CATAATTGAA GAATGTCCA AATCCCCAC	360
CTAGAAAAGG TGCTGCACCT GCTTGCCAGA ATAGCCAATT CAAAACCTCT ACCTTTTCCA	420
CAGGATTACT TGGTAAAAAG GCTCCAAATT TCTCAGCAAG GTAAAGAAGA ATATGAGCAG	480
ACTCAAAGAC TCTTACGTTT TCAGTACCTG ACTGCTCCAA TAAGGCTOGA ATCTTGGAA	540
TTGGATTGAG CTTCAAAJAG TCTGATCCGA ATTGATCCCC ATCCATGATA GCAATCTTAT	600
ACAAGTCGTA AGCCGCTTCC TTAARACCGA CTTCTAGTAA TTCTTCCAAT AAGATAGTAA	660
CCTTCACACC ATTTGGTGTT CCCAGTGAAT AAAGCTGAAA AGCTGTGTCT CCTTTGGCA	720
AGTTTGTTC GAAACGGGCA CTTGCTGTG GTCTGTTTGA CCCCFAAAA GCTCCTTGAT	780
TACTAGCTTC ATCCTGCCAT ACGTTCGGTA ATTGATATGC TGACATCCGA AACCTCCCTT	840
AAATCGCATT CTTGTCAAAA CCGAGTTTGC GTTGAATAAA CTTAAGCATT TCGACGATGA	900
TAATCATTGA GAAGCTTCCA GCCATAACAA TTCCCCATTG TGACAAGTCT AGTTTGGTTA	960
CGTGAAGAT TCCTTCAAGC GGTTCACAA CGATTGTTC CATGAGAAGC ATAAAGGATA	1020

CCAAGATGGA	CCAGTTAAAG	GTCTTAGACT	TGAATGGGCC	AACCTGCAAG	ATGGATTGGT	1080
AGACAGACTT	GACATTGTAG	GCATGGAAGA	GCTGAATCAA	ACCAAGGGTT	GCAAGGCCA	1140
TCGTAGGGC	ATCTGCATGA	ATAGCATGAT	TGTCACCCAC	ATGAACGGG	TAAGCAATCG	1200
CAGGCCATA	AACACTCATA	ACAAGAGCTG	CTGGAGTAC	ACCTTGATAA	ATGATAGAAC	1260
TCAAAACAC	ACCTGAGAAG	AAGCTTGCCT	TGCCTCCACG	TGGTTTATGA	TTCAATGACAC	1320
CAGGTTCCG	AGGTTCAACA	CCAAGAGCGA	TAGCTGGGAA	GGTATCCGTT	ACCAAGTTGA	1380
TCCACAAAG	ATGAACCGG	TGTAAACAT	CCCAACCAA	CAAGCTTGAT	AGGAAGATGG	1440
TTAATACTCT	AGCAGTATTA	GCAGAAAGTA	GGTACTGAAT	AGTCTTTTGA	ATGTTTGAGA	1500
AGACCTTACG	TCCTTCTTCC	ACTGCGACGA	TAATAGTCCG	AAAGTTATCA	TCTGCAAGAA	1560
TCATATCAGA	AGCCCCCTTA	GAAACCTCTG	TACCACTGAT	TCCCATACCG	ATACCGATAT	1620
CGGCTGTTTT	CAGAGCTGGC	GGTCAATTGA	CACCGTCACC	TGTCATGGCA	ACGACTTTAC	1680
CTTGTTTTTG	CCAAGCCTTG	ACGATACGAA	CCTTGTGTTT	TGGAGACACA	CGGCGATAAA	1740
CAGAGTATTG	ACCAAGCACT	TTTTCAAAAT	CTTCACTGTA	CAGTTCAATG	AGTTTCAGCAC	1800
CAGTTAAAC	GTGACCTTCT	GTATCGTTTG	GTCAATGAT	TCCCAACGCT	TTGGCAATGG	1860
CTTCGCTGT	GTCTTGGTGG	TCACCTGTAA	TCATAATTGG	ACGGATTCCC	GCTTCCTTAG	1920
CCACACGAAC	AGCCTCAGCG	GCTTCAGGAC	GTTCAGGGTC	AATCATCCCA	ATCAAAACCAG	1980
TAAAAATTAA	ATCAATTTTCA	AGCTCTTCAG	AAGTGAGATT	TTCTGGAATA	CTATCGATAA	2040
TCTTATAAGC	ACCTGCAAGG	ACAAGCAAGG	CTTGATGAGC	CATTTCAGAA	TTGTTTGTAC	2100
GAAATGAGATT	TGTAACTTTC	TCATCAATCG	GAGCAATATC	CCCAGCCTTA	TCACGAAGAA	2160
GACAACCTTT	TAAGAGTTGG	TCTGGCGCAC	CCTTGACTGC	TACAAGGAAA	CGACCATCTG	2220
GCAATGGGTG	AACCTGTTGAC	ATGAGCTTAC	GGTCAGAGTC	AAATGGCAAT	TCAGCTACAC	2280
GAGGATATTT	CTCTAAGAAA	CCTTTGACAT	CATAGCCCTT	GTCCAAGGCA	TATTGGATAA	2340
AGGCTGTTTC	GTTTGGGTCA	CCAATCAAGT	TACCTTCCAC	ATCGAATTTT	GTATCATTTGG	2400
CCAAGACAAC	TGAACGAAGT	AGTGGCATTT	CAAGACCTAG	TTCAATATCA	TCAGCTGAGT	2460
CATGTAGAAC	CGCATCTAG	AAGACTTTTT	CGACTGTGAT	CTTGTTCATA	GTGAGCGTAC	2520
CAGCTCTATC	AGAAGCGATG	ATTTTCAGTTG	AACCAAGTGT	TTCAACTGCT	GGCAACTTAC	2580
GAACGATGGA	ATGTGCTTTG	GCCAAAACCT	GAGTACCAAG	AGAAAGAACG	ATGGTAAACGA	2640
TAGCAGGAAG	TCCTTCTGGA	ATGGCTGCAA	CGGCAAGGGC	AACAGAGTTC	AACAACCTCAC	2700
CAAGTGGATT	TTTCCCTTGA	ATGAAGACAC	CCACTACAAA	AGTAAACAGG	GCAATGACCA	2760

AGATAGCAT	GGTCAAGACC	TTAGAAAGGT	TGTTCAAATT	TTGTTTGAGT	GGTGTATCAG	2820
TCTCATCCGC	ATCTTGAAGC	ATACCAGCAA	TATGACCAAC	TTCAAGTGAT	ATACCTGTAT	2880
TGACAACAAC	ACCCATCCCA	CGACCATAGG	TTACGTTTGA	GTTTTGGAAG	GCCATGTTGA	2940
CACGGTCACC	AATACCAGCA	TCTGTGCGAA	GCTCGACTGA	CAAGTCTTTT	TCGACTGGTA	3000
CAGATTCAAC	TGTCAAGGCT	GCTTCTTCAA	TTTTAAGAGA	GTTGGCTTCT	ATCAAACGTA	3060
GGTCCGCTGG	TACCACGTCA	CCTGTCTCAA	GGGCAAGAT	ATCGCCTGGT	ACCAATTCTT	3120
TAGAGTCAAT	CTCTGCCATG	TGTCCATCAC	GAAGAACGGG	GGCAACTGGA	CTAGACATGG	3180
ATTTGAGGGC	TTCAATAGCT	TCTTCAAGCT	TTCCCTCTTG	GTAACACCA	AAGGCAGCOT	3240
TGATGATAAC	CACAGCTAGG	ATGATAATGG	CATCTGCGAT	ATCTTCCCCA	CCAGAAGTCA	3300
CGACTGACAA	GATTGctGCC	GCAACTAGGA	TGATAATCAT	CAAAATCCTTA	AATTGCTCGA	3360
TGAATTGTGAC	CAAGATTGAT	CGTTTCTCGC	CTTCTTCGAG	TTCATCTGCG	CCAAATTCGG	3420
CAAGGGCGTT	TTCCGCTCTCA	CTTGATGACA	AACCTTGCTC	GGTGCGATCC	ACAGCCTGCA	3480
AGACCTCTTC	AGGGCTCTGA	GTATAAAAGC	CTTGGCGTTT	TTGTCTTTTT	GACATGTGTC	3540
TCTCTCTTGA	CATTGTGTGC	AAAACAGACT	CTCTTTCTGT	CATAGCTTTT	CACGACAAAC	3600
AAAAAGAAAC	CTGTTAATCA	TAACAAGTCT	CGCTGTTTAA	GATAGGSCCG	GAAAGCATAC	3660
TTTTCAGCAT	AAAATTCGGA	ATGACGACAC	TATCACAGGT	TTCTGCGAGC	TACTCCCTTG	3720
AGTAGTACCA	TTATACAAA	TTTTGGGGAG	TTTTCAAAGA	GTA AAAA CTG	CCTTATTGGA	3780
ATTTTTCCCTT	GA AAACCA GT	ATAATGGTAG	AATGCTATGT	GACTAGAAAG	GAAGTTGAAT	3840
GAAGCAATCT	ATCTCAAA TC	TCAAGTTAGC	TGAGCGTGGG	GCCATTATCA	GTAATTCGAC	3900
CTATTGTATC	TTGTCTGCGG	CCAAATTAGC	AGCTGCTCAT	CTCCTTCATT	CATCCAGTTT	3960
GGTGGCGGAT	GTTTTTAATA	ACGTATCGGA	CATCATTGGA	AATGTGGCCC	TCTTAATCGG	4020
GATTCGGATG	GCGCGCCACC	TGCAGACCGT	GACCACCGTT	TTGGTCAATTG	GAAGATTGAA	4080
GATTTGGCAA	GCTTGATCAC	TTCTATCATC	ATGTTCTATG	TCGGTTTCGA	TGTTCTAAGA	4140
GATACCATTC	AAAAGATTCT	CAGTCGGGAA	GAAACGGTCA	TGTATCTCTC	TGTTGCAACT	4200
CTAGGAATCA	TTTCTGCAGC	GATTATGTTT	GTGGTCTATC	TCCTAGAAATC	TCGCTCTCAGT	4260
AAGAAATCCA	ACTCCAATGC	GCTGAAGGCA	GCTGCTAAGG	ACAATCTTTC	TGACGCTGTT	4320
ACCTCACTTG	GAACCGCCAT	TGCCATCTTA	GCTAGTAGTT	TCAATATATC	GATTGTGGAT	4380
AAACTGGTGG	CTATCATCAT	CACTTTCTTT	ATCTTGAAGA	CTGCTATGA	TATCTTCATC	4440
GAGTCTTCCT	TTAGTCTTTT	AGATGGCTTT	GACGACCGCC	TGCTCGAGGA	CTACCAAAAG	4500
GCTATCATGG	AAATTCOC AA	AATCAGCAAG	GTCAAATCGC	AAAGAGGTGC	CACCTACGGT	4560

AGCAACATCT ACCTGGATAT TACACTAGAG ATGAATCCTG ACTTGTCTGT TTTGAAAGC 4620
 CATGAAATCG CGGATCAGGT CGAGTCTATG CTGGAGGAGC GPTTTPGGGT CTTTGATACC 4680
 GATGTCCATA TCGAACCCAGC ACCTATCCCT GAGGATGAAA TTTTAGACAA TGCTATATAA 4740
 AAATTGCTTA TCGTGAACA ATTGATTGAC CAAGGAACCC AACTAGAAGA ACTCTTGACT 4800
 GATGATTTTG TCTTATTTCG CCAAGATGGA GAGCAGATGG ATAAAGAGGC TTATAAGACC 4860
 AAAAAAGAGT TAAATTCTGC TATCAAGGAC ATTCAAATTA CTTCCATCAG TCAAAAAACC 4920
 AAATCTCATCT GCTATGAGTT AGATGGTATC ATCCATACCA GTATCTGGCG TCCGCCAGAA 4980
 ACCTGGCAAA ATATCTTTCA TCAAGAAACC AAAAAAGAA AGAGAAATCC TTTCATGAGA 5040
 CGGGATTTT CTATTCTTTT ATACTCAATA AAAATCAAAG TGCAAATAG GAAGCCGGTC 5100
 ACAGGCTGTA CTGAGTGG CAATGTGAAG CCGACATAGT TTGCACTTG ATTTTCGAAT 5160
 AGTCTTAAT ATCAAATCA CTGAGTACT CATAGCGTTC GTATTTTCA AGGAGTCTT 5220
 CATTTTCTC ATCCAATCT TTTTGGAGAG TAGCCAGCTT ACCAAGTCA GAGCGTTAG 5280
 CCTGCATTTC CTCCTCAATA GCAGCGATAC GTTTTTCCAA GGTTTCAATA TCACCTTCAA 5340
 TACTTGGCCA CTCCTGCTTT TCTTGGTAGG TCATGCGTTT CTTGTCTCT CGAACCTTGA 5400
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 CTCGAAAGCC TTGCAAGAAA TTCTCTAAGA CTGTCAAAGT TGCAATATCT AGGTCAATGG 5640
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 GGAATTGCTC CAGCACTCA GCGATGGAAG TCGTAGAAC ACCACTGGTC TTGACCTCCT 5820
 CTGCCACTTC CTGCAGGTAA TTGATCACAC GCTTGCTTTC ATCCAAACCC TCAATTGTGT 5880
 GAGAGAAATA GCGATGCGA ACAGTTTCCC CAATCACAAC TTGTCTGCT GTCCGCTCAA 5940
 GACTTCTGCG AATCAGGTTA AGTAGGGTTG ATTTTCCAA ACCATTGTCC CCAACAAATC 6000
 CAATACGGTC TTTAGCCTGA ACTAAGAGAT TAAATTTTG CAAAATGGGC TTATTTTCA 6060
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 TCATAGTCAA GTCTGTCTCA GCACACTGCG CTGAAACTCT CTTTTTCAGA TCATGGAAAC 6180
 GATTCATAG AGCTTGTGTC TTGGTCCGAC GCGCTTGGCG TTGTCTGCGC ATCCAGGCCA 6240
 ATTCTTGTPT GTAGAGTTGT TCTTTTTTGT GAAGAAGAGC CGGTCTGCGC TCATCTGTGT 6300

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CCGCCCTTAG GCGAACATAG TCCTGGTAAT TTCCCTGGTA CTGCGTCAAG CTTGCACGAT	6360		
CCAACCTCGAA AATCCCTGTT GACAAAGCGT CTAAGAAATA ACGATCGTGA GTGATAAAAA	6420		
GGACGGTCTT CTAGAAATT TTCAAAAAGA GGGTCAGCCA CTCAATAATC GCAATATCCA	6480		
GATGGTTGGT CGGCTCATCC AAAAGCAAGA GGTGGTGGTT GCCAAGTAAG ACTTGTGCCA	6540		
ACTGTATCCCG TCTTCTCAGA CCACCTGACA ATTCCCAAC AGGAGTAGAT AAGTCTTGAA	6600		
TGCCCAATTT GCTAAGAAGC GTCTTGACCT GACTTTCGAT TTCCCAAGCT TGGAGAGAGT	6660		
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TCAATTCTATA CTCACGAATG AGCTGGATTT CCTTGAGTTC ACTAGATAGA ACCGTATCCA	6780		
AAACTGTCTT TCTATCATCA AAATCAGGAT CCTGAGTCAA GTAACCAATC TGGTAATCAT	6840		
TTTTAGCTGA AAAAGAGCTG ACATCCCCAT CAAATCCAGA AACACCAGAA AGGACGTCCA	6900		
AAAGGGTGGT CTTGCCAGTC CCATTCGACAC CGATTAAACC AATTCTGTCT AAGTCATGGA	6960		
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CAATTCTCCA TCGACAATGG CAAACTCAAT CTCTGTTAAA ATCTCTCCCA AGTCTGGGCC	7140		
TGGCTGATAG CCATATTCTT TGATCAAAAT ACCGCCATTA ATCTGAATCT CTTTCTGTCT	7200		
ATGGATAGTC AAGCTTTGGT ATTTTTCTGT GATGGCTTGT GGGTTGACTT CTTTCTCTTG	7260		
AGCTTGACGA AGATTTTCAG CCGTAAAAAG CAAATCTATG TCAAAGCGAT AACAACTCTG	7320		
CTTGCTCAAT TCTCCATTTT CACGCAGAGC CAAAAAATC AGCAAAATCT GAACCTTGCTT	7380		
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AGCCCATAGT AAGCCGCCCC AGGCTTGTTC AGAGGATTCA AAAGTAAAT CAGTCTCCAA	7500		
ATCAAAACGT CTGTTGAGCT TGTCTGGCT AGATGCCATA TCAGGGAGAT AGTCATAAGC	7560		
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AGCTTTAAAT GTTCTGGCT CAAGTCAAA ACCAAGACTA GCCTGAAAAC GGAATCCACG	7740		
CATAATCCGT AAAGCATCTT CGTTGAAAGC CTCACTAGCC ACTCCAATCG CTCGCAAGAC	7800		
TTGCTTTTCC AAATCTCTTA AACCATGGA CAACTCAAGC ATTTCTCTGT TCTCATCCAA	7860		
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CTCATACTCC TCATCCCCAT CTAAGACCAA GACGGTTCCA TGCTCGATTG CGATATCGGC	8040		
TGTTTCGGGA AAAATCTGCT TGGTCTCTTC TGGATAAGAA GACGTCCGAA TATCCACATC	8100		

GTGGATAGGG CTATGGAGAA GGGCATCTCG AACGAGCCG CCAACAAAAT AAGCCTCAA 8160

GCCTGCTTCT TTAATTTTTT CTAATACTGG TAAAGCCTTC TGAATTTAG AAGGCATTGG 8220

CGTTAATCTC ATAATAAGTG TTCTAATCCA TAGACAAGCT CATGACGCTT GACAACITCT 8280

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GTCACCCCTT CTCCCTGATT GCCAAGATG ACTTCCTGAT GAGCTACCAA GCTTGGCAAA 8400

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TCCTCATCTG CTGCACTTG CTGAATTGAC TCTCGAACCT CTGCCATCAA CTCAGCTGTT 8520

TTAATGGCTG TTCACCTGG AGCATCCTTT TTCTTGTGAT CATGGAGCTC AATATCTCC 8580

ACATTTGGGA AATATTGGC AGCCTGCGTC GCAAAATGCA TGAGTAAGAC AGCACCCAAG 8640

GCAAAAGTAG GGGCAATCAG GCCACCCAAG TCTTGGGCA GAGAAAATTC TTTTAGCTCT 8700

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CAAGCAGCCT GGCCCATCTT TCCCTTAAAA CGGCAATAA TTACTCGAAT ACTCATCTCT 9000

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ACAAGGCATC TTAAGTAGCC TAGAAGCGC AACTAAATCA CTGGAATATA ACCAGAGCA 9300

ATACTTCTTG CTCTAGAGTG GGTTCGAATG AACTACCAA ATGTAGCAAG TGAACATCC 9360

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CCAATGAATGA CAATGACCG GTATTGACCT GAAGCGGTG TTTCCTTGAT AATTTCAATT 9480

AAGCGCTTGG TGGCCTCTTT TTCAGTACGA ACTTTTCTGT AAACCTTCAAT CACACCTTGA 9540

TCGTTAAAAA AAGGATTGG CTTAATGCTA AGCAATTTGC CCAAAATGGC AGCCCCATTT 9600

GAAAGGCGTC CACCTTTTAC CAAATGATCC AAGTCATCTA CCATGATAAA GGCTGACGTA 9660

CGCGTGATTT GAATGGCTAG CTATCTCTGA ATGCTGGCAA AATCATCGCC CTGATCAAGC 9720

CAATTAAGA CGCTTTCAAC CATGATGCCT AGGGAGGAC TGTGAATCAA AGTGTCGGG 9780

AAGCAATGG TTAAGCCCTC ATAGTCATCG ACCATATACT GGATATTTTG GTAAAACT 9840

GAAATTCAG AAGATAGGAA AAGCCCCAAG GCATGTGTAT AGCCTGTTC TTTGAGCGAA	9900
GTTAAGATCT CATCTAACTT GGCAATACTT GGTGACTGG TCTTAGGCAA TTCAGAAAGC	9960
TGAGCCATT TTTGGTAAAA TTCTCAGCA GACAGATTGA TGCCCTCGAC ATATTCTCA	10020
CCATCAATAT TGACAGGAAT ATCCAAGACA AACAACTCTT CTCTTTGCAA GATCTCTGCA	10080
CTGAGATAAG CAGAGGAATC TGTGAAACA GCTAATTCA TATTAGAAT CCAAAATTAAT	10140
TCCTGGTAAG TCTAATGCAA TTTCAGTCAC TTCTAAGTC AAACGATTGA GCATGTTCAA	10200
ACATGGACGA GCCAAGGTTT CCACCTCTTC TTGGTTCAAT TCACCTGGTT CATTGACAAT	10260
ACGGCCATCG ATATGTTTTA CTGTGAGAT TGTTCACATA ATGACAAACT TATCAAATAC	10320
AATCATAAAG CTCAGATGA CAATCAAGGA AGTCACTTGA TTTTCTGGT CATGTTGAG	10380
CAATTGGAAA TTCACATCCA CTTGGTTTC AGGAGCTCCA TTTTCTTTT CCCATTCAA	10440
ATTACCGCA TCAAAATGAT ACTGACTAAC AAATCTTGT TCACGTTTAA GATTGATGC	10500
TTTCTCCATC GGCACATAA TTATAAGCTA TTGTACATA ATTTTATTAT TTCATCTAGT	10560
TTTCTAGGAT TTACTCAATC CCAATTTGAG CACGAATAC ATCTGTGATG GTATCAACAT	10620
AGTAGTTTAC TTCTTCTGTT GTAGGCGCTT CTGCCATAAC ACGCAAGAGG GGTCTGTTC	10680
CACTTGGAGC AACAGGATA CGGCCGTTCC CCGCCATTTC TTCTTCCATC TTCTCGATGA	10740
TGGCTTGAT AGCTGGCACT TCCATGGCTT TTTCCTTCAT GACGTTTTCC ACTCGGATAT	10800
TAACTAATTT TTGTGATAA ATCGTTACTT CTGCCGCCAA CTCTGATAAG CTCTTACCAG	10860
TTTCTTTCAT GATTTTATGC AATTGAACTG CTGATAATTG ACCATCACTT GTGGTATTGT	10920
AATCCATCAA GATAAGCTGA CCAGACTGTT CACCACCAAG GTTGTAGCCT GATTTTCTCA	10980
TTTCTTCAAC AACGTAGCGG TCAOCCAAGT CAGTAATGC CTGTGTAATA CCTTCOGAT	11040
TCAAGGCCCT GTGGAACCA AGGTTAGACA TAACAGTTGT CACAATTGTA TTTTGAGCCA	11100
ATTGTCTTTT TTCAGAAAGG TATTTTCCGA TGATGTACAT AATCTTGTCA CCATCAACGA	11160
TGTCAACATT CTATCAACA GCAATCAAGC GGTCACTGTC TCCATCAAG GCCAAACCAA	11220
TAGCTGACCC ACTTCTTTTG ACCACTTCTT GAAGGGCTTC TGGATGTGTT GAACCAACAT	11280
TAAGTGTGAT GTTAAGACCG TCTGTGTGTT CCCCAGTAAC CGTCAATTGG GCACCAAGGT	11340
CTGCAAGAT TTGACGGGCA CTGGTAGAAG CTGCTCCATT AGCTGTATCC AAGGCAACCT	11400
TCATTCCATC AAGAGGAGTT CCAGTTGAAA CAAAGTATCC TTCTACTTGA CCAATGCTTC	11460
TGGATAATCT ACCAAAATTC CTAAGCCTTC TGCATTGGA CGAGGAAGAG TGTCTTCTCT	11520
AGCATCTAGC AAGGCTCAA TTTCTGCTTC TTTTTCATCA TCTAGTTTGA AGCCATCAC	11580
GCCAAAGAAC TTGATTCCGT TATCAAGGCG TGGGTTGTGG CTAGCAGAAA TCATGACACC	11640

GGCAGTTGCT CCTTCAGTTT CAACCAAGTA AGCTACTGCT GGTGTTCGAA GGACACCAAG	11700
TTTGTATACG TGAATCCCTA CTGAAAGGAG ACCTGCCACC AAGGCCGATT CCAACATTTT	11760
CCTCGAAATA CGTGTGTAC GTCTTACAAA GACTTTCCGC GCTTCGGTTT CATGTTGACT	11820
AAGAATAGG CCTCCAAAC GTCTTAGTTT AAAGGCTAAT TCTGGTGTAA GTTCTAGGTT	11880
AGCTTTCTCCA CGGACTCCAT CAGTCCCAAA ATATTTTACCC ATTGTATATA AATCCTTTTC	11940
TATTTTTAAT TCGTTTTGA ACTAGTTGCT TTTGTTGACG AAGATGTCTC CGATGAACGT	12000
CTTGACTCTG AATTGATGT GCTTGAACCT GGTGCTACTG GTTTTGTAGT CACCTTCATT	12060
ATTGTATCAA ACGGAGTGAT AACTGCCGGT AAGACAACAC CATTCGGTTC GATTGCCCTGC	12120
AAAGGTACTG AACCACTGTA ATTACCTGTT ATACGTTCCG TAGTTGCCAA AACAGCGATA	12180
ATCTTATCAA TTCTATCCAA TGTCTCTTGG TCACCTGTAA TAGACACTTC TTTATCTGAC	12240
ACCATGACAT TTTCAAATTG TACCCGACTA TCAATTTGAC TAGGGTCAAT CTCTGGTACA	12300
ATCTTTTACCT TATCCTCTCG AGCCTTCTTA CCAATCTTGA CTGTAATTTT TTGCGGAGTC	12360
GCCACAGCGG TCAGCCCATT GGGTAAATCT TCAATGCTCA AAGGAATCTT AATCGTTCCA	12420
ACACCGGCAT CTGTAGGCT AGCACTAACC TTGAATTTAC GTGTACTTTC TTGCATTTCA	12480
CTAGCTAGCG ATTAGGCGATT TGCACCACTC AAGACCAGTC ATACTTCTGA AGCAAAACCG	12540
CTAATAAAAT ACTTATCACT ATTATAGCGT ATGTCAATAG GGACATTTGT TACTGTATTA	12600
GTATAGGTTT CCGTTTTTAC CTGCCTAGCA CTGGTACTGT TTTGAAAATT CGTCGCCGTA	12660
GCATAGACAA ATAAGACACA AGCAAAAAG AGTGAGGATA TGATATATAA ACTATTTTTT	12720
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TCCTATTATG GTTATCGAAA TTCTTCCCGT TTCTCTGTAT ACGACAAAAG TCAAGGCATC	12900
TGAGACTTCT GATAAACCGA TAGCCGCCCG GTGTCTGTC CCAAAATCTT TGGAAATCCC	12960
TGTGTTTTTT GTCAAGGCCA GATAGGCAGA GTCACAGCG ATACGTTCTT CTTTGTATAA	13020
CACCGCACCA TCATGTAGGG GAGTGTGGG AATAAAAAAT TTAATGAGAA GTTCTGCAGA	13080
AATCTTAGCA TCCAAGGGAA TTCTGTGCGA AATATACTCC TGCAAGGTAC GTACACGCTG	13140
AATAGCAACC AAGGCCCGGA TTTTACGAGG ACTCATGTAT TCAACAGACT TAACAAAGGC	13200
ACGAATCATC TGTTCTCTAG CACTAATAGG GGCATTGGAA AAGAAATCTG TCGTCTTCC	13260
CAACGTTTCC AAACGAGTCC GAATCTCTGG AGAGAGATA ACAACGCCG CAATAACCCC	13320
ATAAGTAATA ATTGTATTGA TTAACCAAGA AATCGTAGTC AAACCAATCA TATTTCGAAG	13380

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GATTTGAGCT AAAATAAJACA CCAAACCTCC ACGTACCAAA ATCATAATCT TGGTTCCTGC	13440
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AGCTATCGTC CATGGACTTG CAACAAACT GGTCCAATAT TGCAGATTGG ATAATTGTG	13560
AAAATTCATC CCTGATATCC TCCCTATCAA AACACTTTCG TCCATTATATA CCAATTTCCTG	13620
GCATTTTTTT CCCTATCCTA GTCCATTTTA CATTTGAACAA AAATATGATA AAATAAATCTG	13680
ACTAAAJAAA ACAAGGAGA AACTATGTCT CAACTCTATG ATATTACCAT TGTGGGTGGT	13740
GGCTCTCTGC GGCTTTTTGC AGCTTTTTAT GCCCACTAC GCCAAGCCAA GOTTCAAATC	13800
ATCGACTCTC TTCCCAGCT AGGTGGACAA CTGCTATTC TCTACCCCTGA AAAGGAAATC	13860
CTAGACCTAC CAGGCTTCCC AAACCTGACT GGAGAAGAT TGACTAACCG CTGTATTGAA	13920
CAGCTAAATG GATTTGATAC CCTATTTCAT CTCATGAAA CGGTTCTTGA GATTGACAAA	13980
CAGAAGAAAT TTGCCATCAC AACTTCTAAA GGAAGTCACC TGACTAAAAC AGTTATCATC	14040
GCTATGGGTG GCGGTGCCCT CAACCAAGCT CCGCTGGAAC TTGAAGGGGT TGAGGGCTAT	14100
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CTTGGTGGGG GAGACTGGG TGTGATTGG GCTTTGGCTT TTGAAAAAT CGCACCACCT	14220
ACCCCTGTTC ACCGCAGAGA TAATTCCGT GCCTTGGAAC ACAGTGTTC AACCCTTGCAA	14280
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ATCTATGCTA TCGGTGACTG CTGCTACTAT GACGGAAAA TTGATCTGAT TCGACAGGC	14580
CTCGGAGAG CTCCACTGC TGTCAACAAC GCTATCAACT ACATTGACCC TGAACAAAA	14640
GTACACCAA AACACTCTAC TAGTTTATAA AAAAGAACA CGAGTCACAT AGGATTCGTG	14700
GTTTTATAAT TCATCCGCTA TCTTATGAT TTTTCTGAGT CTGTGATTGA CACCACTTTT	14760
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CCTCAGTTGC GCCACTTCTT GCAAACTTAC TGGCAAAATT TCTAAGCCCA TGATATCTTT	14880
GATTTTACTG ATATTGTAA TGGTCTTCAT GTGGCAGAA ACTGTCCGAG CGATATTAGC	14940
TGTCTCGGCA TTATTAGCC GATTGAGGTC GTTACGGGT TCTCGCAAA TCTTAACCCG	15000
CTCAAAATCA TCACGTGCTT GCATGGCTCC TATTACTATC AAGAAGTCCA TAATGTCTTC	15060
TGCTCGCTGG AGATAGGTCA CAGCCCTCTT CTGCGCTCA AGCACCTTGG CATCCAGTAA	15120
AAACTGTGG AGAAGGAGG CAATTCCTTG CCGGTGGTCC AGATAAACAG AACTGATTTC	15180

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 GCCAAGAAA GAGTCTGCCA AGTGCAATC ACTTAACAA TCCTGCACCT TTTCATCTGT 15360
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 TTTGATTTCA TAGAGATGGA GAAAGGACTC ATAGACGTGA CGGGCCAGTT TGGCATTTTC 15480
 TGTCACAACT GACNAAGTCA AGCCCGAAGT CGAGAGACCG ATGCTACCAG ACATTTTGAT 15540
 AATGGCAGAT AATTCATGCC AGCTCAGATG GTGTTGGCCC AGGATTTCTT CTTTTACTGC 15600
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 GCGATTTCCA CATCTTTTTT CCGCAGACTT TTAGAATGA CGGACTTTC AGTCCCTCCA 16560
 CCAATCACCG TTATCTTTGG TTTTCTCATG AACGGTTTAC CGTTCTCTT CTGCGTCTT 16620
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 CAAATGCCAC ACTACGGTGT TGTCCACCCG TACATCCCAT GGCATGCTC AAAACGACT 16740
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 GGTTCCTCAG TTCTGGTAAA TAATAGGAT TTGGCAAGAA ACGGACATCA AAGACCAAGT 16920

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CCGCATCAAT CGGGATTCCA TACTTAAATC CGAAGGACAT GACTTCGATA CGGAAAGACT 16980
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 CCAACTTGAT TCCATCTAAA ATACGACCGT CTGCTGCTAG TGGGTGACTC CGTCTGTTT 17160
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 AGGACTGAAT GGCTACAGTT TTCCCTGCGC CACTCATCCC TGTCACAATC ACCAAGTGA 17460
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 AACTAGCTTA TCCAATCTCT GCGATGACTT CAATTCGAC TTTTACATCA CGAGGAAGAC 17580
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 TAGCAACAAA AAGGTTGCCA ACGATTTTTC CTGTAACATA GGGTCCGATA GCCTTTGGGG 17880
 CCTTATCTGT ATGAATTGTT TTGGCCATTT TCTTTTCTCT ACAATTTTTC TAAGATTGCA 17940
 TCCCAAGCCT CATCCATCCC TGCCCTACTG ACAGATGAAA AGAGGATGAA ATCGTCACTC 18000
 GGGTCAAACT TTAATTTCTT TTGATTGCT GATTCACTGT TGTTCATTT ACCACGAGGA 18060
 ATCTGTGCG CCTTGTGCG CACAATGAT ACTGGAATCT CATAATACTT GAGAAATTGG 18120
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 CGAGAGTTTT CCGAGTCTGT TAAGTACTCC TCAATCATGC ACCCCCACTT TTCAGTTCC 18240
 TTTTATGAAA CACGAGCATA GCCATAACCA GGCATATCCA CAAAGCGCAT CTTGTCAATCA 18300
 ATGTTAAAAA AGTTACAGGAG CTGGGTTTTA CCAGGTTTTT CTGATGTAGC GCGGAGATT 18360
 TTACGGTTCA ACATAGTGTG GATAAGCTG GATTTACCA CAFTTGAAG CCCTGCTAGG 18420
 GCAATCTCTG GCAATTCACT CTGCGGATAG TGGGACTTAT TAGCTGCACT GAGCAAGATT 18480
 TCAGCATGTT GTGTATTAAG TTCCATAGTC AACTCTAGGC TGTTCCTAGG ATCGGTTTAT 18540
 CCGTTCCATC TACAGTTTCT TTAGTGATGC GAACCAATTT CACATTTTCC TGACTCGGCA 18600
 CCTCAACATC GACATCTAGC ATGGTTTCTT CGATGATGGA GCGAAGTCCA CCGGCCCTG 18660
 TCTTCGGTTC GATTGCTTTA TTGCAATCT CTGGAAGGGC TTCTGCTTCA AATTCCAAT 18720

CAACATCATC ATAAGAAAGC AAGGTTTGGT ATTGTTTCCAC CAAGGCATTT CTTGGCTCTT	18780
TCAAGATGCG AACCAAGTCA TCAACGGTCA ATTGCTCAAG AGCGCAAAA ACAGGCAAGC	18840
GTCCAATCAA CTCAGGATA ATACCAAAAT TTTGAATGTC TTCAGCGATG ATTTCTTGCA	18900
TGTATGAGCT GTTTTGTGTA ATCGCTTAT TATTTTGACC AAATCCGATG ACTTTTTCAC	18960
CCAGACGTTG TTTGACAATT TCTTCAATAC CATCAAAAGC ACCACCCACG ATGAAGAGGA	19020
TATTTTGTGT ATCCACTTGA ATCATCTCTT GTTGTGATG TTTGCGTCCA CCTTGAGCGG	19080
GTACGCTPAG AACAGTTCCC TCAATAATCT TGAGAAGGCG TTGTTGACCC CCTTCACCAAG	19140
AAACATCAGC TGTGATAGAC ACAATCTCAC TCTTCTTGGC AATCTTGTC AATTCAATCCA	19200
CATAGATAAT GCCACGCTCT GCACGTTTGA TGTTAAGTC AGCAACCTGC AAGAGTTTGA	19260
GGAGGATATT TTCCACATCC TCACCCACAT AACCAGCCTC CGTCAGAGCT GTGCGATCCG	19320
CAATAGCAAA AGGTACATTC AAGCTCTTAG CCAAGGCTCG GCGAAGGAAA GTTTTCCCTG	19380
AACCAGTTGG GCCAATCATC AAAATGTTTG ACTTCTGCAA ATCCACATCT CTGACTCTT	19440
CGCGTGTATC GTGGAATTTG ATCGCTTGT AGTGGTTATA AACCGCCACT GCCAAGGCAC	19500
GCTTGGCAGC ATCTTGACCA ATTACATAGT GGTCAAGAT ATGGAGAGGT TCAATTTGOTT	19560
TTGGCACCTC AGACAAGTCT GCCAAGACTT CCTCAACCAA TTCTTCTCGA ATGATTTTCTA	19620
GAGCTAATCT CACGCATTCA TTACAAATAA AAGCATTGTT GCCAGCAATT ATTTTCTTGA	19680
CTTCTTCTTG GTTTTGGCCA CAAAATGAGC AATAAACCAT CATATCATTT TTCTATTTTG	19740
TAGACATGAT TTCTTCCAT TCTATCTGT CATCTATCT AAAATAAGGT CATGPAAAAA	19800
GCATGAATAC TATTGACCAG ATTGGTAAAG GCATTTAAAC AAAGGAGGAT AGAAAGCCCC	19860
TAAAGCTTTT TACGAAAAGC TTGTGCTCCT GCCAGAAAGC AGATGAAACA CAGAAAGGCC	19920
GTGAATAGAC CAAATAAACT CGTTCCATT AGACTTCCTT TCTCTTGGCG TATTGGATGG	19980
TAAAATCATA AGGATCTTTC TCATCTTTGG CGTAAATTTT GCTTGAAACT GTCTCAAAAA	20040
GAGACAAATC AAGTTCTTCA GGGAAATAGG TATCTCTTTC CACCCGAGCA TGAATGTGAG	20100
TGACAATCAC TTTCATCAAG TAAGGTTCAA AAGCCTGAAA AATTTGCTTC CCACCGATAA	20160
TGTAGAGATT CTTTCTTGTA GCTGTATACC AGTCAAGAAC AGACTGGACG TCCTGAAAAG	20220
TAGCAACCCC ATCTATCTTT TCTTCCGGAT TACGCTCAA AATCAAGGTT TCCCGTTTGT	20280
GAAAGCAAGC ACGGCCCATC CCATCAAGG TCACACGCC CATCAAGATA GCATGATTCA	20340
GAGTGTGTTT TTTAAAGTGC TGCAATCTGT CTGGCAAAAT CCAAGGCAGA CGAATTTTCTT	20400
TACCATCAC ACCCTCTTCA TCCTGGGCCC AAATAGCTAC GATTTTCTTA GTCATGCTTC	20460

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CATCCTTTTC ACTGATAGTA CTATTTTATC AAAAAAGACT GTTTTGGAAAT	20520
AGCTTACAAA ATAGAAAAAA TCTGTAGAA ATTTCTTACA GATTATCTA TGTTCCTTA	20580
TTTCTTACAA ACCAGGTGCT TGTCCAAGTT CGGCTGCAAG CATCCAAATT GTTTTATCTG	20640
TTTCAGTTT AGCGCTGCA AAGATACCGT TTGTACATC GTCACTTCT TCATCAGTGA	20700
CATCCAAACC TTTTGGAAA AGTTCTGACA AGTAAAGGTA GATAACAAGA ACACGTTCCA	20760
AGCTTTCTTC AACATTACGG TATTACCAG CTCTTCTTC GATTTACTA TTTTGAAGGA	20820
ACTCTGTCAA TGTAGAGAA GGGCTTCCAC CGAGTGTAA CAAGCGTTCA CTGATTTTAT	20880
CCAATTGACC GTCAAGAGCT TCCATGTACT CATCCATTTT TGGATGCCAT ACAAGGAAAC	20940
CACGACCATG CATATACCAG TGCACCTGGT GCAAAGCAAC GTGAGCTACA TACAAATCAG	21000
CAACAGCTTG GTTCAAGACT TCCFTTGTTT TTGCCAATGC	21040

(2) INFORMATION FOR SEQ ID NO: 56:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 2387 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 56:

ATTCTTAATA CGATTAAAAG GCTTATTACT AAAAGAAAAT TTCAGTTAGA TGAACATAAC	60
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GATAACTTAT TTGATATAT AGATGGTGAT AGGGGCAAAA ATTATCCTAA ATCAGATGAG	180
TTGTTTAGTG AGGAGTACTG TTTATTTTAA AATACAAAGA ATGTTACTAA AAACGGATTT	240
TCATTTCGATA CAAAGCAATT TATCACTAAA ACAAGGATA AATTACTTCG AAAGGCCAAA	300
CTTGAGCGTT ATGATATAGT CTTGACAACA AGAGGTACTG TTGGAATGT AGCGTACTAC	360
GATGAATTAA TAAAATATA ACATTACGT ATAAATTCAG GTATGGTAA ATTACGTCCC	420
AAGACACCAA ATCTAAATCA GAAATTTATT ATCCATGTTT TAAGGAATAA TAATTATAGT	480
CGAGTGATAT CAGGAAGTGC TCAGCCTCAG TTACCAATTA CAAAATRAA AAAAATACTT	540
CTCCCCCTCC CCCCACTAGC CCTCAAAAAT GAGTTGCGAG ACTTTGTAGT CCAGGTGCAAC	600
AAATCACAAT TGGCAATCCA AAAATCTCTG GAAGAAGCTG AAATTTGAA GAAATCTCTG	660
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ACTTCAAGAG AGGAAATCAG ATGGTAGTAA AACAAGAAA ACAAGGAAT TCAATCACCA	780
TTACGATTCC AAGTGAATTT AATATTCCAA GTGGTGTAA ATACGAGCG AAATTTGTAC	840

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CAAGTGGTGA	GATTATCTTT	ACTCCTGAAG	AATTGGGGCA	GCAGGTTCCT	TATGTAICTG	900
ATGATGGCCTT	TGACTTAAAT	TTAGATAAAA	TATTTGACGA	ATACGACGAT	GTTTTCAAAAG	950
CTTTGGTGGG	AAAATGACAA	TCTATTGAC	AGAAAAGCAA	ATTGAAAAAA	TAAATGCTTT	1020
AGCAATTCAA	CGGTATTCTC	CAAAATGAGAA	AATTCARACA	GTTGATCCCT	CTGCCTTAAA	1080
TATGATTGTG	AACCTACCAG	AACAATTGTG	CTTTGGGAGG	CCTCTTTATC	CAACAATTTT	1140
TGATAAAGCA	ACGATACTAT	TGTGCCAATT	GATAAAGAAG	CATGTTTTTT	CTAATGCTAA	1200
TAAAGAAGCT	GCTTCTCTCG	TTTTGGTCAA	ATTTTACAAA	TTAAACGGCT	ATCGTTTTTC	1260
TGTAACGGTA	GAAGAAGCAG	TAAAAATGTG	TGTAACCATC	GCAGTAGAAG	CTTTAACTGA	1320
TGAAAAAATG	ACAAGCTACT	CCAAATGGAT	TTCCTGAACAT	TCTGTTAGAG	AAAAGGTCAA	1380
AAAGTAACCT	AGTATGCTGG	ATTTGAATGA	GCACAAGAAA	ATAAATGAAC	AGACAATATT	1440
AGAATTCGTG	AATGCAGAAA	CTGATATTGT	CTCTTTTAT	TGATGAATAA	GAAAGTGAGA	1500
AATTATGGAA	TCAAAAGTTA	CAATTATCAT	GCAGAAATG	TTACCTCTTT	TAAATAATGA	1560
ACAATTACTA	GCCTTGAGAG	AGAGTTTAGA	ACATCATCTA	GTAGACGGAA	AAAAGCAGCA	1620
GAAGTATTCC	AATAATAACC	TGTTGCAACT	ATTTATTACC	GCCAAAGCAG	TAGAGGGCTG	1680
TAGCTCAAAA	ACAAATCGTT	ATTATCAGAG	GACGATTGAA	AACCTGTTTA	ATGCTATTAA	1740
AGAGTCTGTG	ACACAACCTCA	CAACAGATGA	TTTAAGGAGT	TATTTAGCAA	ATTACCAGTC	1800
TGAAAAGGAT	TGTAGTAAGG	CAAAATTAGA	CAATATTAGG	CGTATATTGT	CTTCTTTTTT	1860
TGCTTGGCTT	GAGCAAGAGG	ATATATCATT	AAAATTCOCA	TTGACGGAT	ACAGAAAATT	1920
AAGACTGAGC	AAAATGTGAA	GGAAACTTAT	ACTGATGAAC	ATTTGGAAAT	TATGCGTGAT	1980
AACCTGTAAA	ATTTGAGAGA	TTTGGCAATA	ATAGACCTAC	TAGCATCGAC	AGGTATCGCT	2040
GTAGGGGAGC	TTGTACAGTT	GAATCGTTCA	GATATTGATT	TTGAAAAACAG	AGAGTGCTTT	2100
GTCTTTGGTA	AAGGAAGGAA	GGAGAGACCA	GTATATTTTG	ACGCTCGTAC	GAAAATTCAT	2160
TTAAGAAATT	ATCTTAACGA	CAGAAAAGAT	AGTCACCTG	CTCTTTTTGT	AACGCTAGTT	2220
GGAAAAGTCC	AGAGGCTTGG	AATTCGTGGT	GTAGAGATTG	GCTTAAGAAA	GTTAGGAGAC	2280
AAACTCGGCA	TACAAAAGGT	TCACCCACAT	AAGTTCAGAA	GAACTTTAGC	GACTAAGGCA	2340
ATTGATAAAG	GTATGCTTAT	CGAACAGTC	CAAAAACCTGC	TAGGTCA		2387

(2) INFORMATION FOR SEQ ID NO: 57:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10669 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 57:

ATATTAAAGC GACTTCTGCT GCGTAGGGA AAAATGTTCC TGGGAATGAG GACTTGGTGA	60
AGAGGATAAA ATCTGAAGCT CATGTTGTTG GAAACCATAG CTGGAGCCAT CCGATTCTCT	120
CGCAACTCTC TCTTGATGAA GCTAAAAAGC AGATTACTGA TACTGAGGAT GTGCTAACTA	180
AAGTGCTGGG TTCTAGTTCT AAACCTATGC GTCCACCTTA TGTGCTATT ACAGATGATA	240
TTTCGCAATAG CTTGGATTG AGCTTTATCA TGTGGGATGT GGATAGTCTG GACTGGAAGA	300
GTAAAAATGA AGCATCTATT TTGACAGAAA TTCAGTATCA AGTAGCTAAT GGTCTATATG	360
TTTTGATGCA TGATATTAC AGTCCGACAG TCAATGCCCT GCCAAGGGTC ATTGAGTATT	420
TGAAAAATCA AGGTTATACC TTTGTGACCA TACCAGAGAT GCTCAATACT CGCCTAAAAG	480
CTCATGAGCT GTACTATAGT CGTGATGAAT AAGCAAGAAA AAATAGGTCT GTTAGATATT	540
TGACAGACTT ATTTTTTACA GAATATAGTA CTACTTAAAA AATGTTTTAT GCTATAATTG	600
ATGAATAAAA TAGAAGGAGA AGCATATGAA TACCTATCAA TTAAATAATG GAGTAGAAAT	660
TCCAGTATTG OGATTTGGAA CTTTTAAGGC TAAGGATGGA GAAGAAGCCT ATCGTGCAAT	720
GTTAGAAGCC TTGAAGGCTG GTTATCGTCA TATTGTATAG CGGGCGATTT ATCAGAAATGA	780
AGAAAGTGTT GGTCAAGCAA TCAAAGATAG CGAGTTCCA CGTGAAGAAA TGTTCGTAAAC	840
TACCAAGCTT TGGAAATGTC AGCAAACTTA TGAGCAAACT CGTCAAGCTT TGGAAAAATC	900
TATAGAAAAA CTGGGCTTGG ATTATTGGGA TTGTATTTG ATTCATTGGC CGAACCCAAA	960
ACCGCTCAGA GAAAAAGAC CATGAAAAAC TCACAATGCG GAAGTTTGGG GAGCGATGGA	1020
AGACCTCTAT CAAGAAGGGA AAATCCGTGC TATCGGCGTT AGCAATTTTC TTCCCATCA	1080
TTTGGATGCC TTGCTTGAAA CTGCAACTAT CGTCTCTGCG GTCAATCAAG TTGCTTTGGC	1140
GCCAGGTGTG TATCAAGATC AAGTCGTAGC TTACTGTCTG GAAAAGGGA TTTTATTGGA	1200
AGCTTTGGGG CCTTTTGGAC AAGGAGAACT GTTTGATAGC AAGCAAGTCC AAAAAATAGC	1260
AGCAAACTAC GGAATACTCG TTGCTCAGAT AGCCTTGGCC TGGAGCTTGG CAGAAGGAAT	1320
TTTACCACCT CCAAAATCTG TCACAACCTC TGTATATCAA GCTAATCTTG ATTGCTTTGG	1380
AATTGAACCT AGTCATGAGG AGAGAGAAAC CTTAAAAACG ATTGCTGTTC AATCGGGTGC	1440
TCCACGAGCT GATGATGTGG ATTTCTAGAA AATCAAAAA AGAATTTGAC ATTATTCTAA	1500
TTTTTGATAT AATAGTCAGC AGGAAAGAAA GTCTTATGCG GTTCTTCAAG CAGGCTTGGG	1560
ATAGTGGGAG CCAAGTAGGG CAAAATTAAG GGTGGCGCT TTCTGTAGTA TTTTCAAAAA	1620

CAATGAAGTA ATAAATTAGG GTGGAAACCG GTTCTGACG CCCCTAGGTT AAATCAACCT	1680
AGGATTGTCA GATGTGTTCT TTTTGCTTAT TCAGCTTATT GTGTGAAAGA AAGGAGAGCC	1740
GTGGACAACC TTATCTTTGT AAAAGACGAT AGTCAACTAG CTACATTTTCG TGATTTTGTA	1800
GTAAGAAATA CTGAAGAGTT GAAAGATTAT CAATCTTTT TAAAGAATGA ACTTGACGTC	1860
TGTGATTTAC CGCAAGCTGT TATTGGTCA GATTTTAATG CTGCTACACA GATTATTAGG	1920
GAAAGTGCTG TTCCAACCTA TACAAATAAT AGACGAGTGG TTATGACGCC TGATTTAGCT	1980
GTTCGGAAG AATTGTAATT GTATCAGTTG ATGGACTACG AGTGTTCTGA GCMAACTCAA	2040
GCAATAGAAA GTCACTATCA TTCTTTATCT GAAAACTCC TCTTACAGAT TGTAGACAT	2100
GAGTTAGCTC ATTGTGCGGA CATTTTTAG ATGATTTTGA TGGTTATGAC TCTTATATCT	2160
GGTTCGAAGA GGGGATGGTT GAATATATTA GTCCGAAGTA TTTCTTGACA GAAGAGGAAT	2220
TTCAAGCGGA AAAAAATTG AATCAATCTC TCGTAGAAGT TTTTCAGAAG AAGTATAGTT	2280
GGCATTCATT GAATGATTTT GGTCTTCGA CTATGATAA GAACATGCA AGTATTTTTT	2340
ATGAATACGT GCGCAGCTTT TTGACAGTAG ATAAAGTTGGT AGAAAAATTTA GGTAGGTAC	2400
AAGCGGTCTT AGATTCTTAT CATTTATGGG CAATACAGA AAAAATTTT CCCTTGTTAG	2460
ATTGGTTTGT TCAGCAGAAA TTAATTGAAA AAGAAATATA AAAACTAAG GAGTAAACAA	2520
TGCTAAGAA ATTAACATTT CACTGCATCA GTGGCAGAGA CCTCCTTACA GTCGGGCTGC	2580
TCCACGCTCA GCACTAGAGT GCCTGAGCTA GACGCAATAC TAACTGCTCT TGCCCTGAT	2640
GATCGACGAG GCAGACTCGT GTCCCAAGTA ATTATTTTT ATTAAGGAGT ATTCAATGTC	2700
TAAGAAATTA ACATTTCACT GCGTCAGTGG CAGAAACCTC CTTACAGTCG GACTGCCCTA	2760
CGCTCAGCAC TAGAGTGCTT GAGCTAGACG CAGTACTAAC TCGTCTTGCC TCGTATAATC	2820
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AAATTAACAT TTCAAGAAAT TATTTTGACT TTGCAACAAT TTTGGAAATG CCAAGATTGT	2940
ATGCTTATGC AGGCTTATGA TAATGAAAAA GTGCGGGGA CAATGAGTCC TTACACITTC	3000
CTTCGTGCTA TCGGACCTGA GCCATGGAA CTAGCTTATG TAGAGCCATC ACCTGCTCTT	3060
GCTGACGCTC GTTATGGGGA AAACCCTAAC CGTCTCTACC AACACCACCA ATTCCAGGTG	3120
GTCAATGAAG CTCTCCATC AATATCCAA GAACITTACC TTGAGTCTTT GGAAAAATTG	3180
GGAATCAATC CTTTGGAGCA AGATATTCGT TTTGTTGAG ACAACTGGGA AAACCCATCA	3240
ACTGGTTCAG CTGGTCTTGG TTGGGAAGTT TGGCTTGAG GAATGGAAT CACTCAGTTC	3300
ACTTATTTCC AACAAAGTCG TGGATTGGCA ACTGGCCCTG TGACTGCGGA AGTACCTAT	3360

		506	
GGTTTGGAGC	GCTTGGCTTC	TTACATTCAA	GAAGTAGACT CTGCTATGA TATCGAGTGG 3420
GCTGATGGTG	TAAAAACGG	AGAAATCTTT	ATCCAGCCTG AGTATGAGCA CTCAAAATAT 3480
TCATTTTGAAA	TTTCGGACCA	AGAAATGTTG	CTTGAAAAC TTTGATAAGTT TGA AAAAGAA 3540
GCTGGTGGTG	CATTAGAAGA	AGGCTTGGTA	CACCTGCTT ATGACTATGT TCTCAAAATGT 3600
TCACATACCT	TTAACTGCT	TGACGGGGT	GGTGGCGTAT CTGTACAGA GCGTGCAGCG 3660
TATATCGCTC	GTATCCGTAA	CTTGGCCCGT	GTCGTAGCCA AAACCTTTGT CGCAGAAGCG 3720
AAACCGCTAG	GCTACCCACT	TTTGGATGAA	GAACAAGAG CTAAACTCCT AGCAGAAGAC 3780
GCAGAAATAA	GAGATGACA	AATTACGAAA	ATGGGCGAAC AGAGTGAGCC CTGAGCCAGT 3840
TGCCGCAGTG	ATGAAGGTAT	CCTTAGTGAA	ACTAAGGATA CTAGGCAAAA TTGGAGACTT 3900
TTGGCTCCAA	TTTTAGCAAT	GAACAACGA	AGTTGGTTGC TTGCGTGCCA ATCACATAAG 3960
GCAAACTGAA	AAATAAAAG	ATACTTTTTC	GAGAAAAAAC ATGACAAAAA ACTTATTAGT 4020
AGAACTCGGT	CTTGAAGAT	TACCAGCTTA	TGTTGTACG CCAAGTGAAA AACAACTAGG 4080
CGAAAAAATG	GCAGCCTTC	TCAAAGGAAA	ACGCCGTGCT TTTGAAGCCA TTCAAACCTT 4140
CTCAACACCA	CGTCGTTTGG	CTGTTGCTGT	AAC TGGTCTTT GCAGACAAAC AGTCTGATTT 4200
AACAGAAAGT	TTCAAGGGTC	CAGCAAAGAA	AATTGCCTTA GATAGTGATG GAAACTTCAC 4260
CAAGACAGCT	CAAGGATTTG	TCCGTGGGAA	AGGTTTGACT GTTGAAGATA TCGAATTCGG 4320
TGAAATCAAG	GGTGAAGAA	ATGCTATGTT	CACTAAGGAA GAAATTTGCTC AAGCAGTTGA 4380
AGCCATTGTT	CCAGGCATFG	TGGATGTCTT	GAACTCACTG ACTTTCCCTG TCAGCATGCA 4440
CTGGGCGGGA	AATAGCTTTG	AATACATCCG	CCTGTGTCAC ACTTTAACTG TTCTCTTGGA 4500
TGAGCAAGAG	TTTGACTTGG	ATTTCCTTGA	TATCAAGGGA AGTCGTGTGA GTCGTGCCCA 4560
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TAAGCAGTTT	GTAAATCGAG	ATCCATGTGA	ACGTGAGCAA ATGATTTGTTG ACCAAATCAA 4680
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CTTGAATTTG	GTGTAATACC	CAACTGCCTT	CATGGGAAAT TTTGATGCTA AATACCTTGA 4800
AGTTCAGGAA	GAAGTCCTGG	TGACTTCTAT	GAAGGAACAC CAGCGTTACT TTGTTGTTCCG 4860
TGATCAAGAT	GGA AAACCTC	TGCCAAACTT	CATTTCTGTT CGTAAOGGAA ACAGAGAGCG 4920
TTTGAAAAAT	GTCAATCAAG	GAAATGAAAA	AGTCTTTGTA GCCCGCTTGG AAGACGGAGA 4980
ATTCTCTCGG	CGTGAAGACC	AAAAATTTGG	GATTTTCAGAT CTTGTTGAAA AATTAAACAA 5040
TGTACCTTTC	CATGAGAGA	TTGGTTCTCT	TGTTGAACAC ATGATTCGTA CGGTCAAAT 5100
CAC TGTACTT	TTGGCAGAAA	AAGCTAGTTT	GTCAAGTGGAT GAAACAGTTG ACCTTGCTCG 5160

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TGCAGCAGCC ATTACAAAT TTGACTTGTT GACAGGTATG GTTGTGAAT TTGACGAAT 5220
 CCAAGGAAT ATGGGTGAAA AATACACCT TCTTGCTGCT GAAACTCCAG CGGTGGCAGC 5280
 TGCTATTGCT GAACACTACA TGCCCTACAT AGCTGAAGGA GAACTCCAG AGAGCAAGGT 5340
 CGGGCGAGTT CTAGCCATTG CAGACAAAT GGATACGATT TTGAGTTTCT TCTCACTAGG 5400
 ATTGATTCCA TCAGGTTCTA ATGACCCTTA TGCCCTTGCT CGTGCAATC AAGGTGTGCT 5460
 TCGTATCTTG GATGCCCTTG GTTGGCACAT TGCTATGGAT GAGCTGATTG ATAGCCTTTA 5520
 TGCATTGAAA TTGACAGTT TGACTTATGA AAAATAAGCA GAGGTTATGG ACTTTATCAA 5580
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 AGGTTCAAAC TTGTTGTGG CAGATATGTT GGAAGCAGCA AGTGCTCTCG TAGAAGTAAG 5700
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 GAAGGCAGAA GGGGTGCTA CGGTGATTC AGCACTATTT GAGAAAGACC AAGAAAAGC 5820
 TTTGGCAGAA GCAGTAGAAA CACTCATTTT ATCAGGAOCT GCAAGTCAGC AATTGAAACA 5880
 ACTTTTGGCG CTAGCCAG TCATTGATGC TTCTTTGAA AATACTATGG TAATGGCTGA 5940
 AGATCAGGCT GTCCGTCAAA ATCGTTTGGC AATCTTGTC CAACTAACCA AGAAGCAGC 6000
 TAAGTTTGCT TGTTTAAAC AAAATAACAC TAAATAAAAT TTGATFAACG GACTTTATCT 6060
 TATACAAAG GAGAAGAAAT GGATCCGAAA AAAATTGCTC GTATCAATGA GCTTGCTAAA 6120
 AAGAAAAAAA CAGAAGGCTT AACACCAGAA GAAAAAGTGG AACAAAGCAA ACTACGTGAG 6180
 GAGTACATCG AAGGTTATCG CCGGCTGTT CGTCACCACA TTGAAGGAAT CAAAATTGTC 6240
 GACGAAGAAG GAAACGATGT TACACCAGAA AACTACGCC AAGTACAACG TGA AAAAGGA 6300
 TTACATGGCC GTAGCTTTGA TGATCCAAAT TCATAATAAT ACTCTTCGAA AATCAAAATC 6360
 AAACCAGTTC AGCTTACCT TGCCGTACTT AAGTACAGCC TGCGGCTAGC TTCTAGTTT 6420
 GCTCTTGAT TTTCATTGAG TATATGTATT CTTTCTTTTA ACAAAGATAG ATGAAACGAT 6480
 AACAAAGAGA CTAGCAGTTT GTGTTTGCTA GTCTTTTTC GCTAAAAAG GAACATAAT 6540
 GGTTCCTAAA AACTATCATT AGTAACCTGC ACCGGCTGTA GCTCTGCGT CACCACCGTG 6600
 GCTTCAGCA TCCCTGAAT CAGAAGCGCC AGAAGTAGCA TCGGCGTCTC CATGACCTCC 6660
 GGCAGCAGGA GCAATGGTC CGTACCACC CACCAACGT TGACCAGTCT CTTTAGGTA 6720
 CCAGTCAAGC CATGGTTGGA AGTTAAAGAC GATTTCATTG ATACCAGCT ATGATCCATC 6780
 AGGATAGTAC ATTGCTTGGT AGTTGTGAGT GTTGATAACA CCTGCAGGAG AACCTGGAAC 6840
 GATCGTACGG ACGTATTCTT GGTTCGGTT GCGAAGTGT CCGATAACCC ACTCTACGTT 6900

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CTTCATACGT	GCTGGTGGAA	GAGAACCATG	AACAGTCGAC	ATACGGCTAC	CTGATTGAGG	6950
TGGTACACGT	TTAGCGAACA	TAGTGTCTGG	ATCTTGGTGA	CGGTGTGTGT	AGTAGAGGAA	7020
TTGGTTGTTG	TCGTACGCGT	ATGTCAATTG	AAATGGCATA	GCTTCAAGA	ACATATCAAT	7080
TTGGTTAACT	GTTAGGATAC	CGTGGTCCAA	TTTGACATAG	GTATCACCAG	AAACAGCACC	7140
AGTGAATGCT	GCAACTTTT	CTACCAATTC	TGGATGCTCA	GGGTCAACTT	CTGTGATGGT	7200
TGTAGCGATT	GGTTTTCCAC	AATCCAAGTC	TTCTGATTGG	ATTGGTTTTG	GTTTTTTCAA	7260
TTTCGAAACG	ACTCCTACGT	ATTTAACAAA	GTTATCTAAG	CAAGTTTCAA	OGAATTTAAC	7320
AGTGCCCTCG	TTGGTGATAT	TTCCGTTGTT	ATCAAAAGCT	TCCTTAGCTT	TACCAAGAAG	7380
GAATTCGTTA	CCTGGAGCGC	TGTAGGCATT	AACACCTGGA	GCATCAAGGA	TTTTACGAAG	7440
GTGAACCTGA	GCACGTGATG	TTCCCTGGTC	ATAGTATGAT	GCACCCACAA	TCATAACAGG	7500
CTTGTTTTCA	AATGGATGAA	CTTCGTATGA	AAGCCATCA	AGTCAAGATT	TGAGTGAAGC	7560
TGAGATAGTG	TGGTTATGCT	CAGGAGTAGC	AATGATAACA	CCATCTGCAC	GAGTAATTTT	7620
GTTATATAAA	TAACTGAATT	GGAAACTTTC	ATCCCAATTT	TCATCTTGGT	TAAACATTGG	7680
AACCTCGTCA	ATTTCAAGAA	CTTCTAATTC	AAATTTGAGT	TTGAAGTAGC	GACGGATAAA	7740
TTCCAAGAGC	TTACGGTTAT	ATGATTGATC	GTAGTTTGAT	CCAACAAGTC	CAACAAATTT	7800
CATTCTTTTT	GGTCTCCTAT	CTTACAAATT	TTCCCAATCA	AAGTCTTCAG	CATCTTTGCG	7860
AAGTAATCT	TGTGCATTAC	GTAATTTTTC	TGTGATTTTT	ACAAAGATAT	GGAAATCATC	7920
AAAGATGGCA	TCCAAATTTCT	TGATAACATC	AAGGTCAACC	AAATCGCCAC	TTGGTTTAAA	7980
TGCTTGAAGA	GAGTGTGAGA	GCAAGAAATC	ATCTGGAAGA	ACATTTGCCT	TGATTTTCAGG	8040
AGCATCTAAG	ATTTGAAGAA	GTTGCAATTG	GGCAGGAGAT	GAAACCAAGC	TACCGTAAGA	8100
AGCACCTGTA	ATCATGATTG	GTTTGTTCAA	AAGTGGGTAA	ATACCATAAG	ACAACCAAGC	8160
AAGAGCGCTC	ATCAAAACAG	CTGGAAATGA	GTGATCATAC	TCAGGAGTAC	CGATAAATAC	8220
GCCATCTGCC	TCTTCGATTT	TAGCAGCAAT	TTCCAATATT	TCAGCAGGTA	CTTGCTTGTC	8280
AGCTGGTTTG	TTGAAGACAG	GAATGGCCTT	GATTTCAACA	AGTTCAATTT	CAGCTTTGTC	8340
AGTAAAGTGT	TTTTGCATGT	ATTTGAAGCA	TTGACGGTTT	GTAGAACGTT	TTGAATTTGT	8400
TCCACAAATA	GCAATAAGTT	TTAACATGAG	ATTTCCTTTC	TCTTTTACAA	TAAATACAAT	8460
TTAAATTTCC	ATTGAACAG	TGTCTCTAT	AGAGTAGGAA	TTCTCGAAGA	ACAGCTTAGG	8520
TGGCCTTCTT	TATCGATGAG	GATGACTTCG	ATGCCCTCCA	AACTTTCGAC	TTGCCAGAGG	8580
ATAGAAAGAG	GTCTTTCTCC	AAAGAGTCGA	GTGCTCCAGA	TTTCGCCATC	GACTGATTTA	8640
TCAGAGATGA	TTGTTAGACT	CGTAGTTTCC	GTTTCAACAG	GATATCCTGT	TTGACTGTCA	8700

AAAATGTGAT	GGTAATCTTG	TCCATCGACG	GTCAAGTGAC	GTTCATAAAT	GCCTGAAGTC	8760
ACGACAGATT	TATTGACAAC	AGGGATGGTC	ATTAATGAT	TTCCCTAGG	ATTGGCTGGG	8820
TCTTGAATCC	CGATTGGCCA	TGGGTATCC	CCTCTTGCCT	GATTTTTTCC	AATGCTCAGG	8880
ATATTCCTC	CCAGATTTGAT	CAAGGCAGAA	GTCAACCCCT	CTTTCTTAAG	AAATGGGCA	8940
ACCTTATCCG	CACGTGATCC	TTTGGCTAAA	CAACCTAGAT	CGATCTTCAT	TCCTTTCTGT	9000
TTTAAACA	CAGTAGAAGT	AGAAGAATCT	AACCTGATC	CATGAGGATT	GATTAGAGGC	9060
AGCACCGATT	CAATTTCTTG	AGGCTGGGCG	ACCTTGGCAT	CTGAAAAACC	GATACGCCAG	9120
GTTTGAATTA	AGGGACCAAT	GCTGATATTG	AGTGGCTAG	AGAGCGCTAG	GCTATGCTCT	9180
AACCAAGTG	AAATCAGCTC	AAACAGGTCT	GGATGAACCG	TGACGGGGCG	TATTCTGCT	9240
TGATAATTGA	TTTCCATCAA	CTCAGATTCT	TGACTATTGG	CGTTGAAGCG	GTATTCAAAT	9300
TCPTTGAGCA	AGTCAAAGGA	TTTTTGGAGA	AAGATATCGG	CTTGCTCATC	CACTAATGAA	9360
ATAGTGATAG	TAGTCCCAT	TAGCCGTTCA	GAAATGAAAC	GAAGAGTCAA	GCTACCAACT	9420
CCTTCTCTCT	ATAGAAAAATA	AGTTGTAATA	TCAAAATATC	ATCTAAATTG	AAGCCCTTAC	9480
ATTTCATTTT	CATGTTATTA	TAATACCAAT	AAGTTAGAAAT	TTTCACAAAC	AAAATTTGGA	9540
AAAAGTCAAG	AAATATGCTC	ATAAAATTC	TCAGGCTTGA	AAACAGGATA	AATGGGGAAT	9600
TATTTTGTGAT	AAAAAATGCT	GAAATAATAG	TACCCCTT	GTAAACGCTA	ACGGTAAATG	9660
GTAATACTAGT	AAGGTAAAT	TAGAATGAAG	GCAGGAATTT	TTTATGAGTA	AAATCGTTGT	9720
AGTCGGTGCT	AACCACGCTG	GTACAGCATG	TATCAATACC	ATGTTGGATA	ATTTTGGAAA	9780
TGAGAACGAA	ATTGTTGTAT	TTGACCAAAA	CTCTAACATC	TCCTTCTCTAG	GATGTTGGAAAT	9840
GGCTCTTTGG	ATTGGTGAAC	AAATTGACGG	TGCTGAAGCG	TTGTTCTATT	CTGATAAAGA	9900
AAAAATTGGAA	GCTAAAGGTG	CTAAAGTTTA	CATGAACCTA	CCTGTTCTTTT	CAATCGACTA	9960
TGATAACAAA	GTAGTTACAG	CGGAAGTTGA	AGGAAAAGAG	CACAAAGAAT	CATACGAAPA	10020
ATTGATTTTC	GCTACAGGCT	CTACACCAAT	CTTGCCACCA	ATCGAAGGTG	TTGAAATTTGT	10080
TAAAGGAAC	CGGAAATTTA	AAGCAACTCT	TGAAAAAGTA	CAATTGCTGA	AATTGTACCA	10140
AAATGCTGAA	GAAATTTATCA	ATAAATCTTC	TGACAGAGC	CAACACCTCG	ACCGTATCGC	10200
CGTTGTTGGT	GGTGGTTACA	TGGGTGTTGA	ACTTGCTGAA	GCCTTTGAAC	GTCTTGGAAA	10260
AGAAGTTGTC	CTTGTGATA	TCGTTGATAC	TGCTTTGAAC	GGTTACTATG	ACAAAGACTT	10320
CACACAAATG	ATGGCGAAGA	ACTTGGGAAGA	TCACAACATC	CGCTTGGCTC	TAGGTCAAAC	10380
TGTTAAAGCA	ATCGAAGGTG	ACGGTAAAGT	TGAACGCTTG	ATTACTGACA	AGAAAAGCTT	10440

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TGACGTGAT ATGGTTATCC TTGCAGTTGG TTTCGGTCCA AACACAGCCC TTGCAGGTGG	10500
TAAGATCGAA CTCTTCGCA ACGGTGCCCTT CCTGTAGAC AAGAAACAAG AACATCTAT	10560
CCCAGACGTT TACGCTGTTG GTGACTGTCC GACTGTTTAT GACAATGCTC GFAAAGATAC	10620
AAGCTATATC GCTCTGCTT CAATGCTGT GCGCACTGGT AACGTTGGT	10669

(2) INFORMATION FOR SEQ ID NO: 58:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 7542 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 58:

CGCGCTAATA GATACCTTAT GATAGAAATA AGAACAGAT TGCAAGTAA GAGGAACAT	60
TATGCAAAAT CAAACACTA TGCAATACTT TGAATGTAAT CTGCCCCACG ACGGTCAACA	120
CTGGAGCGCT CTGGCTGAAA ATGCTCCACA CCTAGCTCAT CTGGGGATCA GTCAAGTCTG	180
GATGCCACCA GCCTTCAAGG CAACCAACGA AAAAGATGTC GGCTATGGGG TCTATGACTT	240
ATTTGACTTA GGAGAGTTCA ACCAAAAAG GACTGTCCGC ACCAAGTATG GTTTCAAAGA	300
AGACTATCTT CAAGCAATT C AAGCCCTTAA AGCACAGGGA ATTCACCTTA TGCGCGATGT	360
AGTTCTCAAC CACAAGGCTG CTGCCGATCA CAGGGAAGCC TTTCAGGTTA TCGAAGTTGA	420
TCCTGTAGAC CGTACAGTTG AACTTGGAGA ACCCTTCACC ATCAATGGCT GGACTAGTTT	480
TACCTTCGAT GGTGCCAAG ATACCTATAA TGGCTCCAC TGGCATTTGT ACCACTTCAC	540
CGGTACAGAC TACGATGCCA AACGCACTAA ATCTGGGATT TATCTGATCC AAGGGGACAA	600
CAAGGGCTGG GCCAACGAGG AATTGGTCTGA TAACGAAAAC GGAACCTACG ACTACCTCAT	660
GTATGCCGAC CTAGACTTTA AACATCCTGA AGTCATCCAA AACATCTATG ACTGGGCTGA	720
TTGTTTCAAT GAAACGACTG GTGTAGCTGG TTTCGGTTTG GATGCCGTTA AGCATATTGA	780
CTCTTTCTTT ATGCGCAACT TCATCCGCGA TATGAAGGAA AAATACGGTG ACGATTCTTA	840
TGTTTTTGGT GAATTTTGA ACCCAGACAA GGAAGCCAA CTGGACTATC TCGAAAAAAC	900
GGAAGAACAC TTTGACCTTG TCGATGTTCG TCTCCACCAG AATCTCTTTG AAGCCAGTCA	960
AGCTGGCGCA AACTATGACC TTCGTGGCAT TTTCACAGAT AGCTGTGTTG AACTCAAGCC	1020
TGACAAGGCT GTGACTTTTG TCGACACCA CGATACCCAA CGAGGACAAG CCCTTGAGTC	1080
TACCGTTGAA GAATGGTTCA AGCCAGCAGC CTATGCCCTC ATTTTGTATC GCCAAGACGG	1140
CCTTCCATGT GTCTTTTACG GAGACTACTA TGGGATTTCA GGCAGTATG CTCGAAGA	1200

TTTCAAAGAA	ATCCTTGACC	GCTCTCAGC	CATCCGAUAA	GATTTGGCCT	ATGAGAGAACA	1250
AAATGACTAC	TTTGACCATG	CTAACTGTAT	CGGTGGGTA	CGTTCAGGTG	CTGAUAAATCA	1320
ATCCCCAATC	GCAGTCTTAT	TCTCAAATGA	CCAAGAAAC	AGCAAGTCAA	TGTTTGTGCG	1380
TCAAGAAATG	ACTAATCAAA	CTTTGTAGA	TTTACTTGGT	AACCACCAAG	GTCAAGTTAC	1440
AATTGATGAG	GAAGCTTATG	GACAAATCCC	TGTCTCAGCT	AGATCCGTAA	GTGTCTGGGC	1500
AGTCAATACC	ATCTAATAGC	TCAATAAATC	CAAGCTAGGT	CCAAGCGGAT	TTGGCTTTT	1560
TGTATTACACA	AAAAGACCTA	CCCAAATGGA	TAGATCTTTA	CTTGATTACA	ATTTACCTGC	1620
TACTGCATCC	AACAATTCTT	GGATCTTAGG	TTGGTTGGCT	CCTCTGCA	TGGCCATATC	1680
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TAGGACAAGA	AGATCAGAGT	AGTCTTTTTC	TTTCCAGTTA	TCTGCMAAG	TACGAAGGGC	1860
ACCGGCATCG	GATACAGACA	CTTGACTAGC	AATGTAAAGA	TGACCGTTGA	CTTCTTTAAC	1920
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AAAGAGGGCC	ATAGCTCCCA	TTTCTTTAGC	AGTGTCAATA	TCCGTTTCAA	CTGTCTTCAC	2340
TTCAAGTGCT	TCOCAAATTT	TCTCGTTAAC	TTGCTGTCCA	ATCGCACGAA	GTTCCTCAGC	2400
AGTTACTGCT	TGGAAGTGGG	TAAAGTCAAA	GCGAAGAAAT	TCAACTTCTG	TAAGAGATCC	2460
TGCTGTGTGT	GCTGTGTTTC	CAAGGATATT	GTGAAGGCGA	GCGTGAAGCA	AATGAGTCGC	2520
AGTGTGTTTT	TTCAATGACAC	GGTGACGGCG	ATTGCTATCA	ATTGCCAAGG	TATATTCTTG	2580
GTTCAGAGCA	AGCGGTGCAA	GGACTTTCAAC	TGTATGAAGG	GCTTGACCAT	TTGGGGCTTT	2640
CTGAACATTG	GTACACAGTAG	CCACAACCTT	ACCTGACTCA	TCCAAGATT	GTCCGTAGTC	2700
AGCTACTCTGT	CCACCAATTT	CAGCATTAATA	TGAGTTTCC	GCAAGATTA	GAGAGGCAGT	2760
TCTTCTGAA	ACAGCTCTCTA	CTTCTGCAAT	GTACAGCAAGC	ATAGCTACCA	ATTTAGAAGA	2820
CAATTTGGCTA	GCATTTGTAGT	TGAAGACACT	TTCTACAGTG	ATGTTTGAAG	GAGTTTCAAT	2880
TTGCATACCC	ATTGAGCCAC	CCTTGACAGC	TGACGCACGC	GCGGTCTCT	GTGTTCTTT	2940

CATGGCTGCT TCAAAACCTT CACGGTCTAC AGTCATACCA GCTTCTTCAG CGATTTCTTC	3000
AGTCAATTCA ACTGGGAACC CATAAGTATC ATAGAGTTTG AAGACATCTG AACGAGCGAT	3060
AACAGATTGA CTTTTTCTT TCAAGTCTGC TACAATGCCT TGGGCAAGT GTTGACCTGA	3120
GTGAAGGTA CGGGCAATG ATTCTTCTTC GCTCTTAACG ATTTTCTCAA TAAAGTCAG	3180
TTTCTCAAGC ACTTCTGGT AGTAGCTTC CATGATTTTT CCAACAGTTG GAACCAATTT	3240
GTAAGAGAA GGCTCGTGA TACCCAATT TTGACCATGC ATAGAAGCAC GACGGAGAAG	3300
ACGACGAAGA ACATAACAC GACCTTCATT TCCTGGAAGG GCACCATCAC CGATAGCAAA	3360
TGAAGAGAA CGAATGTGG CTGGATAAC CTTGAGCTC ATGTTGTGG CATCTTGGTC	3420
ATAAACCTTA CCAGACAATT TCTCGACTTC ACGGATAATC GGCATGAAGA GGTCCGTTTC	3480
AAAGTTGGTC TTAGCCCTT GGATAACGG CACCACGCG TCCAAACGAG CGCCCGTATC	3540
AATGTTCTTA TGTGGCAATT CCTTGTATTC GCTACGAGGA ACAGCAGGGT CTGCGTTAAA	3600
TTGTGCAAAA ACGATGTTC AGATTTCAT ATAACGGTGC TTTTCAATAT CTTCGCAAG	3660
CAGGCGAAGA CCGATATTT CTGGGTCAA GGCTTCCCA CGGTCAAAGA AGATTCTGT	3720
ATCTGTGCCA GAAGGTCCG CACCGATTTC CCAGAAGTTG TCCTCAATTG GAATCAAGTG	3780
ACTTGGATCC ACTCCACTT CAATCCAGCG GTTGTAGAA TCTTTATCGT CTGGATAGTA	3840
GGTCATGTA AGTTTTTCAG CAGGGAATC AAACCATCA GGGCTTGTC AAAGCTCATA	3900
AGCCCCAGTG ATAGCTTCGT CACGGAAGTA ATCCCCGATA GAGAAGTTC CCAGCATTTT	3960
AAACATGGTA TGGTGACGCG CGGTCTTCCC TACGTTTTCG ATGTCGTTGG TAGCGATAGC	4020
CTTTTGGGCA TTGTAATAT GTGGATTTT AGGGATAATG GTCCCGTCAA AGTATTTCTT	4080
AAGGGTTGCT ACCCCAGAGT TGATCCACAA AAGAGTTGGG TCATTTTACAG GAACCAAACT	4140
TACTGATGGT TCTACTGAGT GACCTTTGGT CGCCGAGAAA TCAAGCCACA TTTGGCGTAC	4200
TTGTGCACTA GATAGTTGTT TCATATGTG TCCTTATPCA CTGTTTAAAT GTGATGGCT	4260
TTCCAGCATT TCCACATAGT CAATCGCGAC ACAGAGGGAA ATGACTAGGT CTGCATAGAC	4320
GTCTTCAAGA ACGGTTACGG TATAGGTAGA AGTCAGATGG AAGAGTTCTT TCTTAATTTT	4380
CGCAATCAAC TGATCGCGAT CATCCAGCAA TTTGAAATTC AAATCCCAGA TATGCGCCTC	4440
GATACGAAGA CCTAGATTAT CAATCTCATA CTATCTCGC CAGAAGGTCA ACTTCTTAGC	4500
AATGACAAA CTGAGGCAAT CCGAAGCTG AATTTCAAA CGAGGAAGCA AGGTCAAGAT	4560
TTCTTTACTA ATCTCACTGA CTGTTTCACC AGCGCATCA TAGATGGTAA AGSTTTTAGG	4620
AATCTTAAAA AATGATCCCT CCACCTGATA GGCAATTTCT CCCCCTGCAT CCTTGATAGC	4680
GAAGCGTTG CCTCAAGAC GAAACTTTT TTTGACAAGA AATGTTTTC TCAACACCTC	4740

CAAAAATCAA AAGACAGCT CATATCAGCA AGGCGGAAAA ACCGCGGTAC CACCTTCATT 4800
 CAATGAACCT GTCAATCTCT TGTTCATTATG CAATTGTATG ATTGAGTAGC ATGACTTCCT 4860
 AGCTTAGATG GCTCGCAGCA CGGCCATTTC TCTGGACTAA GACAAGTGAA AATCAATTCT 4920
 CAACCTTCTT ATTATAAGT TTTTAAAGC TTGCGTCAAC TGGAAATGAT CTCCGTGAA 4980
 TTAGACCAAT TCCCTACATC TCTGATTACT TTTTCAGGAT ATATTCTTTC TTAATGCCAT 5040
 TTTTCTTTT ATCCCAAAT TTCAATTAC TAAACACAGC TACTAGAATA TTCCAAATA 5100
 TAAAGGTGCC TATCAOCCAA TATATGGACT CAGTTGTAG GTATTGTGCA TCCAGGCCAT 5160
 CCTTAAATG GAATAGTATA GCAGTTTGT TAACAAATCAT AAAGGTGCG CAGAACTTT 5220
 TTTTGAAAA AGTAGACAT TTCAATTATT GTTGCCGCT TCTGTAAAGT TAATACTCAA 5280
 TAAAAATCAA AAAGCAAAT AGGAAGCTAG CCTCAAGCTG TACTTGAATA CGGCAAGGCA 5340
 ACGCTGACGT GGTGTAAGA GTATAGGCTT AGTATACTAC TAGGCAAGCA AATAAACAA 5400
 TAAACAACATA GAATAGAAAA AGATAGGGCT CTAACAACTG ACTTCTATT CTTAAAAAG 5460
 AACAGCTTG ACTGATTCGT CTCTTACGT TTATCTCCTA CTTCGATAC ATTTAAACT 5520
 GTAGGAAGAG GTCCTATAT TTCCCTGTCC ATTTATGGCT AAATTTCTCA TAACTTCTTA 5580
 GGTGTTCAT GTTTCACAA TCGGATAGA AGGCTTATC TTCTTTGTT TCCTCTGGGA 5640
 GCAATCTCT CGCTGGTAGG TTTGOTGTTG AATAGCCGAC ATACTCCGCA TTTTGGAGAG 5700
 CATTTTCAGG TTCAACATA AAGTTGATAA AGGCATAGGC TGAGTTTTGG TTTTAACTG 5760
 TTTTGGGAAT GACCATATTG TCAAAOCCAA GATTGCTGGC CTCTGTGGT ACCACATAAC 5820
 GTAGATTTC ATTTTTTCT AACATTGGC TGGCTTCACC AGAGAAGGTC ACGCGATTG 5880
 CAACATTATT CTGAATCATA TAGCCCTTCA TCTGTCGCG AACGATAGCC TTGATATTG 5940
 GAGTCAGTT GTAGAGCTTA TCCACTGTCT CTTCCAACTG CTGCAGATCC TTGGAGTTGA 6000
 GGCTGTAGCC GAGGGAATTG AGTCTAGTC CCAGCACCTC ACGCGCCCA TCAAGAGCA 6060
 TGATAGAAAT CTTACTACC GGCTTCCAAA GGTATCCCA ATGCTCAGGC GCTTATCTA 6120
 CCATGTTTC GTGTAGACA ATTCTTAGG TTCCCAAGAA GTAAAGGATG GAGAATTTAT 6180
 TACTGGGTC AAGGACTGG TTGAGAACT CTGGTCCGAT ATTTTCGATT CCTTCAATT 6240
 TTGAATTAAC AAGCGGAACC AAGAGTCTT CGTCCTTCAT CTGTTAATC ATGTATTAC 6300
 TTGGAATGCG AATATCGTAG GTCGTTCCAC CCGCTTTAT CTTAGGTAC ATGGCTCGT 6360
 TGGAGTCAA AGTCTCGTAC TGAACGTGAA TTCTGTTTC TTCTGTAAAC TGAGTCAAGA 6420
 GTTCAGGATC GATATAGTCT CCCAGTTAT AGATAACCA TTTTGAATA TCTCGACTAT 6480

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TGATTTTACT ATCTAAATGA GTCCGAATTC CCCACAGAC AAGGATAATC GCTGCAATTC	6540
CTGCTAAJJA TGAATAGATT TTTTTCATGC TTGCTCTCC TTCTCACGAG AGATAAAGTA	6600
ATAACCTACA ACTAGGATAA TACTAAAGAG AAGACTAGA GCAGACAGGG CATTTGATTTTC	6660
TAAGGAAATC CCCTTGGGAG CACGAGAGTA AATCTGACTT GATAGGGTTG AAAAGCCATT	6720
TTCTGTTACA AAGAAGGTCA CGGCAAAAGT ATCTAACGAA TAGGTGAAGG CCATGAAATA	6780
ACCACTAATG ATAGACGGAG TCAGGTAAAG AAGCATGATT TCCTTGAACA TCTGAAATG	6840
ACTAGTCCCC AAGTCATAGG CCGCATGAAT CATGTGCCA TTCATTTCTT TGAGTCGAGG	6900
CAGACCATC AAGACCAGA TAGGAATGGA GAAGGCCACG TGACTAGATA GAACGGTCAA	6960
AAAGCCAAGT GAAACTTGA GTTGGGTAAA GAGAATCAAG AAGCTAGCAC CAATCATTAAC	7020
GTCAGGCGCA ACCATGAGGA TATTATTGAG TGATAGAAAG GCTTCTTGGT ATTTCTTAGC	7080
AGACTGTTAG ATGTAATGG CACCAAAAGT CCGATAATG GTGCGTATCA AGGCTGATAG	7140
GAAGGCCAAG AAAAATGCTT GAGCCAAAT CAGCATGAGT CTCCCATCTC CAACATGGT	7200
TTCAAAATGA GTCCAGCTAA AACCTGTAAA GCTATTCTA TCATCACCAG CATTAAGGC	7260
ATAGCCAATC AAGTAAAGA TAGGCAGGTA GAGGACCAGA AAGACCAGTC CCAGATAAAG	7320
GTTGGCAAA TTTTTCATCG TTCTCTCCTT TCCTTAGTCA CCCACATGGT GATGAACATG	7380
GTCAGGATGA GAATCACACC GATGGTTGAA CCGATACCAT AGTTGTCAAT GGTAGAAATA	7440
TTCTGCTCAA TAGCGTCCC CAAGGTGATA ACGGTTCCC ACCAATCAA CGGGTCAGCA	7500
TGAAGAGACT CAAACTGGG ATAAAGACCG ACTGAACCCC GG	7542

(2) INFORMATION FOR SEQ ID NO: 59:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9223 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 59:

AAAACCAAA TCCGGTATTT TAACCTATGC TGTAATACC ATGAAGTCTG TCATGACAGA	60
TCAGTCTAT AACATTAAAG TTGAGACAGA AAATGGAAAT TATGTTGGTG AAGCTAGCCA	120
GTTTTGTGC CTTTTCACAA ATTACTTCGC TGATAAGAAA ATCTTTGAAG AAAACAAGGA	180
CGGCTATGCC AACATTTGA TTCTGAAAGA TGCCCTTATA TTCTCCAAAT TATCGGTAT	240
TCCTGATTTA TTAAGAGGG ATGTTGTGCG AAATGATAAT ATCGAGTATA TCAAGACGG	300
TATATATAAA ATCTCTTCAG ATAGTGAATT GGAGTCAGAT GTTGACGGAG ATAAATCAGA	360

TAACCTACCT	GTAGAAATCA	AAGTCCTAGC	TCAGCGAGTA	GAAGTATTTT	CAAAACCGAA	420
AGAGGATTAG	TATATAGAGA	AAGCCTTTT	TAAGGCTTTT	TGTATACCTT	AAAAGATAGT	480
TCCTTTAACA	ACGGACATTC	CTTGCAATA	GTTTTACAAA	AATAGTATAC	TGGATTCTAT	540
GAGTTTGAAA	ACGTTTGGT	AAAATTGAA	TGAATCTTT	ACGAGACAAA	TTGATCGAAT	600
TGAGTGTAT	TTACCATAGG	CCTGAGTCG	AGTATGACTA	TCTTTATAG	GATAAGAAAC	660
TCCATATTGG	AATTCGAAC	AAGAAAGGG	ACATTGAAG	CATCAACTTG	CACATATGGG	720
ACCCCTTTAT	CTTTATGGAG	GAGTTTATC	AGGATACAAA	AGAAATGGTC	AAGATAACTT	780
CTGGTACCTT	ATTTGACCAT	TGGCAGGTTG	AAGTGTCACT	TGACTTTGCA	CGTATCCAGT	840
ATCTCTTTGA	GCTCAGAGAT	ACAGAAGGTC	AAATATTTT	GTATGGCGAT	AAAGGGTGTG	900
TGGAAAATTC	TCTAGAAAAT	CTTCATGCAA	TTGGGAATGG	ATTTAAGTTG	CCTTAGCTTC	960
ATGAGATTGA	TGCTTCGAAG	GTTCCTGACT	GGGTTTCAAA	TACGGTATGG	TATCAGATAT	1020
TTCTCTGAAG	ATTTGCCAAT	GGCAATGCTC	TATTAACCC	AGAAGGGACT	TTAGACTGGG	1080
ATTTCATCTG	CACACCTAAG	AGCGATGATT	TCTTTGGTGG	TGATTTACAG	GGGATTTATG	1140
ATCATPATGAA	TTACTTGCAA	GACTTGGGTA	TTACTGGACT	ATATCTTTGT	CCCATCTTTG	1200
AATCTACAAG	CAATCACAA	TACAATACGA	CAGATTACTT	TGAAATTGAC	CGTCATTTTG	1260
GAGACAAAG	GACCTTTGG	GAACGTGGTG	ATCAAGCGCA	TCATCGTGGC	ATGAAATCA	1320
TGCTGGATGC	GGTATTTAAT	CATATTGGTT	CGCAATCTCT	TCAATGGAAA	AATGTCGTCA	1380
AAAATGGTGA	ACAGTCTGCT	TATAAGGATT	GGTTCCATAT	TCAACAATTC	CCAGTGACAA	1440
CTGAAAAGCT	AGTTAATAAG	AGAGACTTAC	CCTATCATGT	TTTTGGTTTC	GAGGACTATA	1500
TGCCTAAGCT	AAATCAGGCC	AATCCAGAGG	TCAAGAAATTA	TCTTTAAG	GTTCGACTT	1560
ATPGGATTGA	AGAGTTTAA	ATCGATGCTT	GGCGTTTGG	TGTGGCTAAT	GAGATTGACC	1620
ATCAGTTCTG	GAAGGATTTT	CGTAAGGCAG	TTTTAGCTAA	AAATCCTGAT	CTTTATATCC	1680
TAGGAGAGT	CTGGCATACA	TCTCAGCCTT	GGCTAAATGG	AGATGAGTTC	CTATCCCTCA	1740
TGAATTAATC	TTTATCTGAT	AGTATCAAGG	ACTATTCTCT	ACGAGGAATT	AAGAAGACAG	1800
ACCAGTTTAT	CGATGAAATC	AATGGAGAGT	CTATGTATTA	CAAGCAGCAG	ATTTACAGAG	1860
TCATGTTTAA	TCTCTTGGAT	TCACATGATA	CAGAGCGAAT	CTGTGGACG	GCCATGTAA	1920
ATGTTCAACT	GGTTAAATCA	GCCTTAGCCT	TTCTCTTTTT	ACAAAAGGA	ACACCTGTCA	1980
TTTATPATCG	AACCGAGCTA	GCCTTGACTG	GAGGACACGA	TCCAGATTGT	CGTCTTGTGA	2040
TGCTTTGGGA	ACGTGTATCA	AGTGACAAATG	ATATGCTGAA	CTTTATGAAG	AGGCTGATTA	2100

		516	
AAATTCGGAA ATACGCGTCA GTAATCATTT CGCATGGCAA GTATAGCCTT CAAGAAATCA	2160		
ACTCTGATCT AGTAGCTCTG GAAATGGAAAT ACGAAGGACG GATCTCTAAA GCAATATTC	2220		
ACCAATCAAC AGAAGATAT CTTTTAGAGA AAGAAGCAGT AGCAGTAGCA AGCAATTGCC	2280		
AAGAATTGGA TAATCAGCTT GTCATCTCTC CAGATGGATT TATGATTTTC TAAAACTAG	2340		
TTCATAGAAGA TTATGGTACA TTTCATACCT TATATAGTAT AATAAGGCTA GTTACTAAAC	2400		
TCTTAAAGGA GAACCTAAAT GAATTGTAGA GGACATGAAA CAAGACAAG AATTGTTAGA	2460		
GATTTTGAAG TTCAGCCTAA AGCACATATT AAGCTGTTAG CAAATCAACA AAAACATAGT	2520		
GATGCGAGAG CAACTATTGA AGATGAATAT TATGTATTTA TCGCTGAGAG TAAAAATTGAT	2580		
GGCAAGAAAG AAGTTATTCA GTGTTCATG GGTGCGGCAA GGGATTTTTT AGAAGTAATT	2640		
AATCACAAAG GGCTACCTCT TTTTAAATCCG CTTGTAGGTG ATTCTCATGT AAATAATAGA	2700		
CAAGAATATG ACAATACAGG GAGTGGAAAT TTATAACCTG AAAAGTGGAA TGAAGCTGCA	2760		
AAGCAGCTTT ATAATGCTAT AATGTGGTGT ATTATTTTAT GGAATGCTAA GCGGATGACA	2820		
CCTTTATTTA ATTTTAAAGA CGAAGTAATT AAGTATAAAA CATATGAGCC TTTGAAAGC	2880		
AGTATAAAAA GAGTAAATAC TACTATAAAG AATGGTAGTA AAGGGAAGAC TCTGACTGAG	2940		
ATGATTAATG GCTACAGAGC GGATAACGAT ATTAGAGATG AAATTGTGAA CTTTAATATT	3000		
CTGAAAAATA AAATTCGTGA TATGAAAAAC CAACAAGGAA ATACAATGGA ATCTTACTTT	3060		
TAGTTATTGT TGAATTTTGG GTATTCTATA AAATATCCTA ATTGAGATTT AAATAGTAGA	3120		
CTATACAATA TAGTTAAAT ATCAGTAAAA ACAACACTTT ATTGAGGTAT TGGATACGCT	3180		
TTGCTAATAG CCTAATAATC ACATGTGGAG TGTTCGTACA ACGAAAAAGG TGATAATCCT	3240		
TGATTTCAAG CTATTTTATA AGCATTTTGT CTTGTAGAT AAAGCAATT TTGACAATAA	3300		
AAATCCTAAA AGGTGAATCG TTATAGATGT ATTGTAGAT ATCGTTTGGC CATCGAAAAA	3360		
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GATAGAAAAA CAAGAAATAA CGCACCATT TTGCTGCGTT ATGCTTTTTT ATGCTATAT	3480		
GGATTTATAA AATAAAGGA GTTTGCTATG ATTGGAAGA ACATAAAATC CTTGCGTAAA	3540		
ACACATGACT TAACACAAC CTGAATTTGCA CGGATTTGAG GTATTTACAG AAATAGTCTG	3600		
AGTCGTTATG AAAATGGAAC GAGTTCAGT TCTACCGAAT TAATGACAT CATTTGTCAG	3660		
AAGTTTAATG TATCTTATGT CGATATTGTA GGAGAAGATA AAATGCTCAA TCTGTTGAA	3720		
GATTAATGAAT TGACTTTAAA AATTGAAATT GTGAAAAGAA GAGGTGCTAA TCTATATCT	3780		
CGACTCTATC GTTATCAAGA TAGTCAGGGA ATTAGCATTG ATGATGAGTC TAATCCTTGG	3840		
ATTTTAATGA GTGATGATCT ATCTGATTTG ATTCATACGA ATATCTATCT AGTGAAGAACT	3900		

TTTGTAGAAA TAGAGAGATA TAGTGGCTAT TTGGATGGAA TTGAACGTAT GTTAGAGATA	3960
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ATCCTTTAGC AAGGAATCTT CGTTCACTGA CAAGAGGAAA AAGTCCAGT AAGCAACCTA	4080
TACCGATTTT GCTTGGAGGG CAAAGTGGTG CCGTAAAGAC TACAATTCAT CGTATTAAAC	4140
AGAAAGAATT TCAAGGAAAT ATTGTTATCA TAGATGGTGA TAGTTTTCGT TCTCAGCATC	4200
CACACTATTT AGAAGTCGAG CAAGAATATG GCAAGAGCAG TGTAGAATAT ACCAAGATT	4260
TTCCAGGAAA AATGGTAGAG TCTTTAGTAA CAAAATTGAG TAGTTTGAGA TACAATCTTT	4320
TGATAGAGGG AACTTTACGA ACAGTTGATG TTCCAAGAAA AACAGCACAA CTCTTGAAAA	4380
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AACTAGCTAT CTTTGAAAGA ATTCAAATTT ACCAACGAGA TAGAAGTTGT GTATATGATT	4620
CAAAAGAAAA TACAACCTCA GCAGCAGATG TTCTTCAAGA GTTACTCTTT GGGGAGTGGA	4680
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CTGTTTATCA AGAACTAACA AATTCCAAG AGAATTCGG TAGCTTTTAC AAGACTTTAA	4860
TTCAITTTGCA TACACTGTGT TCTTATGATT ACAAGCTATT TTCTAATTGG ACTGCAACGA	4920
AAATAGAGAA AATTACTGAA GATGAACAT ATGATATATT TTTTGAAJAT AAGAAAATAA	4980
AAGTTGATAA GACAAATTTT TTTAGTAATT TTGATAAGGT TGTTTTTCT AGTTCAAAG	5040
AAATATATTAG TTTTCTTATG TTAGCAGAGG CAATCATAAA AAATGGAAAT GAAATAGTTG	5100
TAGTAACCTGA TCATAATACT ACCAAGGTA TTAAGAAAGTT ACAAATGGCA GTCTCAATCA	5160
TAATGAARAA TTATCGGATT TATGATATAC ATCCTCATAT TTTACATGGA GTAGAAATTA	5220
GTGCAGCAGA TAAATTCGAT ATTGTATGTA TATATGATTA TGAACAAGAA TCATGGGTTA	5280
ATCAATGGTT AAGTGAJAT ATTATAAGTG AGAAGATGC AAGTTATCAA CATTCACCTGA	5340
CTATAATGAA GGAATTCAT AATCAAAAA TAGTTAACTA TATTGCTCAT TTCAATAGTT	5400
ATGACATTTT GAAAAAGGT TCTCACTTAT CAGGTGCATA TAAACGAAAA ATTTTTTCTA	5460
AAGAAAAATAC ACGATTTTGG AGTTTAATAT TAACTGAAA GAATCTTCGC AACAACTTGA	5520
TATTCCTCAT AAGGAAGTG GTGTATTAG TTTGGGACAA AAGTTGTAG CCAATGCTGA	5580
TTTTTTATTA GCATATAGTG ATTATCTTAA AGACTTCAGA CCAATGATTA TTGATCAGCC	5640

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TGAAGCAAT	CTAGACAATC	GTATATTTA	CAGGCATTTA	GTTCAAGCAGT	TTAGAGATGT	5700
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GACAGATCAA	GTGTATTATA	TGGAGTCAGA	TGGAGTTAAC	GGATGGATTG	AATCACAGGG	5820
ATATGTTAGT	GAATAATATA	TAAAAAATCA	TATCATCAAT	CAATTAGAGG	GAGGAAAAGA	5880
TTCTTCTCAAG	CATAAAATGT	CTATATATGA	GACGGCTTTA	TCAGAGTAGA	GTCAAAAAA	5940
GTAGGTTAGA	AATTTAGCCT	ACTTTTTTCT	TTGTCGACA	GGCATAAGTGT	ACATCTGAGG	6000
TCCAAGTCTT	CTGTGGATAT	TTGCTGCAGA	TGAAACCAAT	AGCGACTCCT	AAGCCTGAAT	6060
ATCGTCAGGT	AGGGGGGATA	GGAAGGAATT	AGCGAAATCA	AGGTTCTACA	AACAGAATCG	6120
TGACTTTGAAG	CCATATATAG	CGGATGAGGA	ACTCTAAAT	CCAAATAGGT	GTCTTAACCT	6180
ATATACGTAA	ATTACGAGAG	TAAACTAGGA	AAGATGTACG	GCTTATCCG	TGAGCGTTTA	6240
GGACGTAGTA	CAACGAATCA	TGGGAGTCAG	CTGAACACAT	AGTATTGAAG	AAATTTCTGT	6300
AATGGAATAG	GAGCGAGAA	GTGAACAATT	AAATGAATAC	CTCTCTAATT	AAATTTGTCA	6360
ATTCTAATTC	CTGGTATGAA	AAGACAGTGA	CCTGAAATG	TAAACGATGG	GAGCTGATCA	6420
TAAATATAGG	ACGGTACATG	CAGTGGTGT	AGAGATTAGT	CCTTACTTGA	TTTGTGATAA	6480
CTTCCCCAAA	TTTCTCTG	TATACTTTTC	TCAACTTTTA	AAAACTCAAC	TAAGAATTTT	6540
ACCTGGGGGT	TTGGGGGGG	AGCACTAAGT	TATCTTATCG	TTAGCTGTCA	AAACTGGTAG	6600
GTTTTGATAG	GCTGGCGATA	TGATTTTGG	GATATTGTGG	ACACAATATC	TGAGCTCGCA	6660
AAGCCTTACA	AGAAATGAAA	TCAGTTGTGT	GAAAAGTGTA	CTGACATTGT	ATGGTAGCTC	6720
ACATTTGTAG	TACAAGTATT	TTGGAAAGGA	AGTAGCAGTA	TGAAACGAGA	TGTGCGTGAT	6780
ATTCCGAAC	AATTTCTGTT	AACAGAAGCA	GAAGAAAGC	AAATTTCTAGC	TTTGATGAGA	6840
GAGCGGGGAG	AGACTAATTT	CTCTGATTTT	CTTCGTAAAA	GTTTACTTTT	CTCTGATTTA	6900
CAAAAACAGA	TGGAGACATG	GTTCGCCCTC	TGSCAATCCU	AAAAACTAGA	ACAAATCAGT	6960
CGTGACGTTT	ATGAAGTTT	AATCTTGGCA	CAGTCAGAAC	GTCAAATCAC	CCAAAGAGCAT	7020
GTATCTATTCT	TCTTAAAGTG	CGTGACGAA	TGATTTCAAG	AGGTTGCAAA	CACCATACCC	7080
CTCAGTAAAG	AATTTCTGTG	GAAGTACATG	AGGTAAGCAC	ATGGAACATC	GTTTACCGAAC	7140
CAATCTCAAG	AAAGTGTTTT	TGTCTGATAG	TGAGTTGAAC	CAACTAAATA	TAAATATCGA	7200
TCAAAGTGGT	TGTAAATCCT	TTTCTGAATA	TGCGAGACGA	ACTCTACTGC	ATCCTGGTAT	7260
GAATTTTATC	ACGATTGACA	CAAAACGTTA	CCAAGATTTA	GTGTTTGTAGT	TAAAGAGGAT	7320
TGGCAATAAT	ATCAACCGA	TTGCTCGAAG	TGTTAATCAA	TCTCAGTTAA	TTTCTGGTGA	7380
AGAATTCCAG	GAGTTGAAAA	AAGGAATTGG	TGAATTGATA	AAGAAGTTTG	ATAAGGAATT	7440

TAATCTGCAA GCGCAGAAAG TAAAGGAGTT CCATGGTCAT CACTAAACAC TTTGCCATTC	7500
ACGGAAGAG TTACCGCAGA AAGCTTATCA AGTACATTCT CAATCCTGAG AAACCAATA	7550
ATCTTGCCCTT GGTGTGGAC TATGGCATGA AGAATTTTCT GGACTTTTCT AGCTATGAGG	7620
AAATGGTGCA GATGTATCAT GAAATTTCA TCAGCAACGA TACGCTTTAC GATTTTGGCC	7680
ACGACAGGAT GGAAGAAAT CAACGAAAAA TACACGCTCA CCACATCATT CAGTCTTCT	7740
GGCAGAGGA TCATATCACT CCTGAACAAA TCAATCGGAT AGGTTATGAG ACTGTGAAGG	7800
AATTAACCTG TGGCAATTT CGTTTATCG TTGCGAOCCTA TGTTGATAAA GACCACCTGC	7860
ACAATCACAT CATTATCAAT TCAGTAGATA GCAATTCCTA CAAAAAGCTC AAGTGGGACT	7920
ACAAGGTGGA GCGAATCTT CGCATGATTT CTGACCGTTT TTCTAAAAAT GCAGGTGCTA	7980
AAATCATGGA GAACCGCTAT TCTCACCAGC GGTATGAAGT CTATCGTAAG ACTAATCACA	8040
AGTATGAACCT CAAGCAGCA CTCTATTTTT TGATGGAACA TTCTAGGGAC TTTGAGGATT	8100
TCAAAAAGAA TGCTCCGCTA CTACATGTGG AGATGGATTT CCGTCACAAG CATGCCACCT	8160
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TAAAGGAGAC AGAGCTAGAC CAGAAAAATC TTTATGATGT AGAGTTTTTC CAAGATTATT	8460
TTAAAAATAG AAAAGATTGG CAAGCTCCAG AAAGTGAAGA TTTGCTCAA CTTTATCAAG	8520
AAGAAAAGTT ATCCAAAGAA AAAGAACTTC CAAGCGATGA GAAATTTCTG GAGTCTATC	8580
AAGAGTTCAA GAGTAACAGA GATGCCGCTC ATGAATTTGA GGTGGAGTTG TCACCAATC	8640
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TCATCAGGGA AACCAGCTCC TACTATGTCT ACCACAAGA CGTCCGAG AAAAATGTT	8820
ATATGAAGG TCGAACCTTA ATTAGACAGT TCAGCTATGA AAATCAAACC ATTCCATTAC	8880
GCAGAAAAGC GACAGTCGAT ATGATTAAAG AGAAGATTGC GGAAGTGGAT GCTTTGATTG	8940
AAGTGGAGT AGAAATCAA TCTTATGTCA CGATTAAAGA TGAGTTAGTG CATGAACATG	9000
CAGCGCTGTA ATTGAGAATC AATGAGTTGC AAGAAGAAAT GTCAACCTTG AATCAAGTAG	9060
CAGAAATATCT ACTGCTTCA GTTGAAAGTA AGCAAGAAAT GAAATTAAT CTTTCAAAAC	9120
TGAATATAAC TGAGAAATATC AGTGTAAATA TTGTTGAGAA AAAATTGAAG AGCCTGGGGA	9180

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ATCAACTGGA ATTGGAAAGG GGCAGGTATG AAGAGATGGT AGT

9223

(2) INFORMATION FOR SEQ ID NO: 60:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 6827 base pairs
- (B) TYPR: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 60:

TCGCTGGCT ACCATCATCT GACTTGGGCA AGACCAAAGT CTTAGTTACA ACTGTATTCT	60
TCTCAGCATT TTCAATAACT GGCAATGCCG ACTGAAGCGT ATCTTTTCT GTTTTGTAG	120
CTGGTCCAGT TTCTTTTTTC TGTCGCCAAC CAACCAGGAC AAAAAGGAAA GCTAGACTAA	180
CAAGAMCTAT TTTTTCATT TCTTCTCTCT TCTTTTGA AATTAAAAA GAATAAGACT	240
GGGAAGTGCT CCCAGCCTTG ATGTTTATAG AGCTGCACGC AAACGTGCTT CTGCATTTTC	300
TACATTACGG ACAGAGCGTG GTAGGAAGGC ACGAATATCG TCTTCTTGT AGCCAACTTG	360
CAGGCGTTT TCATCTACAA GGATGGGCT CTTTAAAAAT CTGGTGTT CCATAATCAG	420
ATTGAGAACT TCATTGACAC TCAATCTTC AATATCCACT CCAAGGGCTT TGGCATAGCG	480
ATTTTATAGAC GAAACGATGC TGGCTATTCC GTTATCTGTT TTGGTAGAA TATCCAGTAA	540
TTCTTCTCTC GTAATTCCTT CTTTACCAAG GTTTTGTCT TTATAACTTA ACTGTTGGC	600
ATTGAGCCAG GTTTTGTCT TTTTACAGCT AGTACAACCT GAGACTGTAT AAATTTAAT	660
CATGTACCTA CCCCTTTCG TACATGTTAC TATCAGTTTA GTCTATTATA CCATAAAAAA	720
CATCGACTT GCGACCTATT TTTAATTTT TTGACTTTT TTGCTATT TCGTACTTTT	780
TTCTTGACAA ACAACTAAAT GACTATCAAC TCTTTTGGAG CTAGGGTCAA TAATTCACAA	840
CCTGTCCTG TAATCAGGAT ATCATCTCG ATACGAACGC CATATTTGCC TTCGATATAG	900
ATACCTGOTT CATCGGTCAA GGCCATACCT GTCTTAATAG TTCTGTAGA AGTCTGACTA	960
AAGTAGGGT CTCTATGAT ATCCAGACCA ATACCGTGGC CAATGCCGTG AGTAAAGTAG	1020
TCACCATAAC CTGCTCAAT GATAATATCA CGAGGGAATT TGTCAAAGTC ACGGAAACCT	1080
AAGCTGCTT TACTGTGGT AATCAAGGCT TGGTTAGCT TTAGAACCCT ATTGTAAATC	1140
TTGCTGCTCT CATCGCTAAC ATGCCCTAGA TAGATAGTCC GGGTCATATC ACTGACATAG	1200
TGGTCATAGA GACAGCGGAA GTCCATGGTG ATGGCTTCTC CCAACTCCAC TGGTTTGTGC	1260
ATTGATGGG CATGGGGTTT AGAAGAATTG ATACCGCTAG CTAGGATCGT ATCAAAAGAT	1320
AAGCCAGATG CTCCCAACTC ACGCATGCGG AAATCAAGGA AGTTGGCAAT CTCAATTCTCA	1380

GTTTTCCTGT	GTTTGAATAA	GTCAAGCGCA	TGCGGGAAG	CTTGCTCTGA	GATGAACAA	1440
GCCTTTCGAA	TGCTGCAAT	CTCTGCCTCA	TCTTTATCA	TACGAAGACC	TTCACAAAC	1500
TGAGTTTGTG	GAAGCAAGTT	CAAACTGCA	AAAGCTGCTT	GCATACGGTG	GTAATAAGAC	1560
ACTGAATCT	CATCTTCAA	ACCGATACGA	GTCAAGCCCA	TGTCCTTAAC	AATCTCTGCA	1620
ATGACAGCCA	ATTCAATCAC	ATCAGCCACA	ATCTCAAAAC	CACCTGGTTT	TTGCTTAGCT	1680
GCATGATAT	AGCGAGAGTC	TGCTACTAAG	ACCTGACGGT	CACGACTGAT	AAGACTGTT	1740
CCGTTTGAGC	CCCAAAACC	AGTCAATAA	TAGACGTTTT	TAAGATTGTT	GATGATGATA	1800
CCATCTAGTT	CTTTTCTTG	CATTTAGCT	AGAAATGCTT	GTACGCTTT	ATTCAATGATG	1860
TAACTTTCTT	TTCAATAGT	GTCTGTATA	GCTGGCTTCG	TTGGCAGCTA	CTTCTTCTGG	1920
AGTTCTCTGT	ACGATGATGG	TTCCACCACC	GACACCGCCC	TCAGGTCCCA	AGTCAATGAT	1980
ATGGTCTGCC	GTCTTGATAA	CATCCAGATT	GTGCTCGATG	ACGAGGACTG	TATTGCCATC	2040
GTCTACAAAG	CGAGCTAAA	CCTTGAGCAG	GCGAGCAATG	TCCTCTGTAT	GAAGCCCTGT	2100
CGTCGGCTCA	TCCGAATGT	AGAAAGATT	TCTGTCTGAT	CGTTTGTGGA	GTTGCTTAGC	2160
TAACTTCATA	CGTTGGGCTT	CTCCCCAGA	AAGGGTGGTA	GCTGGCTGTC	CCAAGGTCAC	2220
ATAGCCTAGC	CCTACATCCT	TGATGGTCTG	GAGTTTGGCT	TGAATTTTCG	GAATGTGTTG	2280
GAATAATTCT	ACCGCATCGT	TGACCGTCAT	ATCCAAGACC	TGCGAAATAT	TCTTTTCTCT	2340
GTAGTGAAC	TCTAGGGTTT	CACTGTTATA	GCGGTTCCG	TGGCAAACTT	CACAAGCCAC	2400
ATAAACATCT	GGCAAGAAGT	GCATCTCAAT	CTTGATAATC	CCGTCACTGT	AGCAAGCTTC	2460
ACAGCGACCT	CCCTTGACGT	TGAAACTGAA	GCGCCCTTC	TTGTAGCCTC	GAATCTTGGC	2520
TTCAATTGTC	TGAGCAAAA	GGTCACGTAT	ATCGTCAAAA	ACTCTGTAT	AGGTAGCTGG	2580
GTTAGACCTC	GGCGTCCGTC	CGATAGGGCT	CTGGTCAATA	TCAATCAAA	GGTCGACATG	2640
CTCAATCCCT	GTAATAGTCT	TAAACTTACC	AGGTTTGTCT	GAATTACGGT	TGAGCTTCTG	2700
GGCAATGGCT	TTTTTGAGAA	TGCTGTTGAT	TAGATTCGAT	TTCCCTGAAC	CCGACACACC	2760
TGTCACTGCG	ATAAATTTTC	CTAGTGGAAA	GCGAGCCGTC	ACATTTTGCA	AGTTGTTCTC	2820
ACGCGCTCCT	ATCACTCAA	TAAACGACC	ATTTCGACA	CGCGCTCTTT	CTGGTACTGG	2880
GATGACACGT	TTGCTGACA	AGTACTGACC	TGTGATAGAC	TTGCTGTTGC	GAGCCACTTG	2940
CTTAGGTGTA	CTGCTGCAA	CAATCTCACC	ACCAAAAAA	CGGCACACAG	GACCAACGTC	3000
AATCAGATAA	TCAGCCTCAC	GCATGGTATC	TTGCTGCTGT	TCCACCAGGA	TAMGATATT	3060
GCCCAAGTCA	CGCATCTTTT	TCAGACTGGC	AATCAGGGA	TCATTGTCCC	TCTGTGTAAG	3120

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ACCGATPGAC GGCTCGTCTA GGATATAGAG GACACCTGAT AGGTTGGAAC CAATCTGGGT	3180
TGCCAAACGA ATGCGCTGAC TTTCGCCACC TGAAAGGGTT CTTGCTGAAC GTGACAGGGT	3240
TAGATAGTTA AGACCCACAT TATTAAAGAA GGTCAAACGA TCCTTGATTT CCTTGAGAA	3300
GGGACGAGCA ATGATGGCTT CATTTTCAGA CAAGTTTAACT TGCTCACCAC AGTCCAAAGTG	3360
ATCCAGCGATA GACAGGCTCG AGATTTCTCC AATATGTGGC CCTTGCCTGC CGCCACACAG	3420
GACAGACAAG GCCTGGTCAT TGAGACGATA GCCTTGACAG GTTCCGACAG TCAGCTCATT	3480
CATGTAGAGA CGCATCTGAG TGCAGGTGTA ATCGCTATTG GTTTTCATGTT AAGACGCTTT	3540
GATATTATTG ATAACTCCCT CAACCGAAT GTCGATATCG CGCAGCCAC CAATTCATT	3600
CTCATAGTGG AATGGAATT CCTTACCATC TGACCCATAG AGAATCAAGT TCTTATCTTC	3660
TTCTGACAGG TCCTCAAAG GCTTATCCAT AGCCACTCCA AAGACTTTCA TGGCCTGCTC	3720
TACATGTTT GGATAGTAGT TGGATGAGAT AGGATTCCAA GGTGCTAGCG CTCCTCCAG	3780
TAAGGTTTGT CTAGCATCTG GCATACCAA ATCAGTATCC ACCTCCAGCT TGATGCCCAA	3840
GCCGTACAC TCACCTACAG AGCCAAAGG AGCATTGAAA GAAAAGAGAC GAGGCTCTAA	3900
CTCTGGGACA GTAAACCAC AAACCTGACA GGCMTAATGC TCAGAGAAC ACAAACCGA	3960
GTCTCCATG GTGTGATAA TGACATAACC TTCTGCAATA CGAAGGCGAG CCTCAATGGA	4020
ATCAAAGAGA CGACTACGAA TGCCCTCCTT GATAACAATA CGGTCAAACA CGACATCGAT	4080
ATGTGTTCG TTGCTCTTAG ACAACTCTGG CACTTCGGTC ACATCATAGA CTTCCTCATC	4140
CACACGGACA CGAACATACC GTCCTTCTG AACCTTCTCG ATAACTCTT TATGTTGGCC	4200
TTTTTCTCTG CGGATGACAG GAGCCAGAT CTGCAAGCG TGGGTTTCTG GTAACTCCAA	4260
AACCTTATCA ACGATTGCT CCACAGAGA AGCATTGATA GCTCCATGTC CGTGATACA	4320
GTAAAGGCTC CCCACACGTG COTAGAGGAG ACGCAGATAG TCAATGATTT CAGTCGTCT	4380
TCCACACGTC GAGCGAGAT TTCTACTAGT CGTCTTCTGG TCGATGGAAT TAGCTGGCT	4440
GAGACCATCA ATGCGATCTA CATCTGGTTT TTCCATATTT CCCAAGAAT GACGAGGTA	4500
GGCGGACAAA CTCTCTACAT AGCGACGTTG TCCTCCGCA TAGAGGATAT CAAAGCCAG	4560
ACTGGAATTC CCTGAACCTG ACAAGCCAGT CACGACAACT AACCTGTCTC GCGAATCTC	4620
CACATCAATA TTTTTTAAAT TATGGGACAG CGCCCCATGA ATGACAAATT TATCTTGAT	4680
CTTTGTTCTT TCTAGTCCAT TATTGCTTAC CATTATACCA AAAAAAGTGA GATTTATTA	4740
CCCAAGAGC CGATTTTGTG GTATAATAGT ACAGTGTGAA AAAATCTGAA AATGAGAAA	4800
GGATAAGGGA TATGAACAA GTTTTTCTCT CTACACAACT TGAATTTAAA GAGATCGATA	4860
CGCTTGAACC CGGTACTTGG ATCAATCTCG TCAATCCAG TCAAAATGAA TCACTCGAAA	4920

TCGCCAACAC	CTTCGATATT	GATATTGCTG	ACCTTCGAGC	ACCGCTCGAT	GCGGAAGAAA	4980
TGTCCTCGAT	TACCATTGAA	GACGAGTATA	CCTGATTAT	CGTAGACGTG	CCGGTCACGG	5040
AGGAAAGAAA	TAACCGCACC	TACTACGTAA	CCATCCCGCT	TGGTATTATC	ATCACTGAGG	5100
AAACCATTAT	CACTACGTGT	TTGGAACCAC	TACCTGTCTT	TGATGTCTTT	ATCAACCGTC	5160
GATTGCGTAA	TTCTATATAC	TTCATGCGGT	CACGTTTTAT	CTTTCAAATT	CTTTATCGCA	5220
ATGCAGAGCT	TTACCTAACA	GCCCTTCGTT	CAATCGACCG	CAAGAGTGAA	CAAATCGAAA	5280
GTCAACTGCA	TCAATCAACT	CGTAATGAAG	AATTGATTGA	GCTCATGGAA	TTGGAAGAAA	5340
CTATCGTCTA	TTTCAAGGCC	TCCCTCAAAA	CAATGAGCG	CGTGATTAA	AAATTGACCA	5400
GTTCAACGAG	CAATATCAAG	AAATACCTTG	AGGACGAAGA	CCTGCTTGAA	GACACCCGTA	5460
TTGAAACCCA	ACAGGCCATC	GAGATGGCAG	ATATTTATGG	AAACGCTCTG	CATTCTATGA	5520
CAGAGACCTT	TGCCCTCATC	ATTTCTTAACA	ACGGAACAA	CATCATGAAA	ACCTTGGCCC	5580
TTGTGACCAT	CGTCATGTCC	ATCCCAACCA	TGCTCTTTTC	TGCTTACGGG	ATGAACCTTA	5640
AGGATAATGA	AATCCCCCTA	AACGGAGAGC	CAATGCCTT	CTGTTAATCT	GTCTTTATCG	5700
CCCTTTGCTAT	GAGTGTCTCG	CTCACTCTCT	ATCTCATCCA	TAAAAAATGG	TTCTAAGAGG	5760
AGTTCCTATG	TCTCAAATTG	ATCTACAAAA	ATLAACTAAG	AAAAACCAAG	AGTTTGTCCA	5820
CATTGCTACC	CAACAAITCA	TCAAAGATGG	GAAAAACAGC	GCTGAAATCC	AGACTATTTT	5880
TGAGGAAGTC	ATTCCCCAAA	TCCTTGAGGA	GCAATCTAAA	GGTACAACTG	CCCGTTCCTT	5940
ATACGGCGCA	CCAACTCAAT	GGGCTCATAG	CTTCACTGTC	AAAGAGCAGT	ACGAAAAAGA	6000
GCATCCAAAA	GAAAATGATG	ACCCAAAATC	GATGATTATG	GACTCAGCTC	TTTTCATCAC	6060
TAGCCTCTTT	GCCCTTGCTA	GCGCCCTCAC	AACCTCTTTT	GCGGCAGACC	AAGCTTTCGG	6120
CTATGGATTG	ATTACTCTTC	TATTAGTTGG	ACTGGTTGGT	GGAITTTGCT	TCTACTTGA	6180
GTACTACTTT	GTTTACCAAT	ACTATGGACC	AGATATGGAT	CGAGTCAAC	GTCCACCTTT	6240
CTGGAAATCT	GTACTAATTA	TCCTAGCTTC	TATGTTCTTT	TGGTTGCTTG	TCTTCTTGCC	6300
AACAAGCTTC	CTACCACTTA	GCCTTAACCC	AGTACTGGAT	CCATTGCCAC	TAGCTATTAT	6360
TGGAGCAGCC	CTCCTAGCCC	TTGCTTCTTA	TCTCAGAAA	CGCTTGAATA	TCCGTAGTGC	6420
AAGTCACAGA	CCAACACGCT	ATCAGAAATA	AGAAAACGAT	AAAAGCAACT	GCAGGTGCGG	6480
TTGCTTTTTC	ACTTACTTTT	TTGAGTTATA	TTCAATGAAA	ATCAAAAGAGC	AAACTAGGAA	6540
GCTAGCTGCA	GGTTGCTCAA	AGCACAGCTT	TGAGGTTGCA	GATAAAACTG	ACGTGGTTTG	6600
AAGAGATTTT	CGAAGAGTAT	TAAAAGTATT	CTTCTGAAAT	CCCATATAGC	TTTCTCTTAT	6660

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ATTTTGTGAT AAAATAGGCT CAATCTATT CTAGGAGGAT GAGATATGGT TTCTACTATT	6720
GGTATTCTTTA GTTTATCTAG TGGCATTATC GGAGAGGATT TTGTCAAACA CGAAGTGGAC	6780
TTGGGTATCC AACGCTCAA GGATCTGGGA CTCATCCCA TCTTTT	6827

(2) INFORMATION FOR SEQ ID NO: 61:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 11864 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 61:

CTGGCTAGTT GCATAGAGCA AAGTTGCTTC TTCAATCAACA AAACCGTTCA TTCAAAAATA	60
GSAAAGCAGC TCATCAGGAC TCTCCAAAGC AATCCCTTTG TAATCCAGCT CAACAGCCAC	120
CTTTTTCAGG GCTGACAGAA GAAAGTTGCC CAGGCCCTGT CTCTGATGCT CAACTCGAT	180
GACTAAAGAA TGTACTTTTA GACATTGCGG ATTGTCTGAC TGGGGACTTG ATAAAATATA	240
GCCTAAAAGT TGATTTTCAT CCCTAGCTAG AAGAANGGTA TCCGCACACT TACGGATACT	300
TTCTTTTAAA ATATGGGAAA GTTGCTGCTT TTCAGCTGGA AAAGACGAGG TCTGAAGTGC	360
CCCTATCTCA GGCAAATCAG ACTTGCTTGC CTGAATGATC TTAATTGGAA TTTCATGGG	420
AACATCCAT TGAACATTGC TTGTCAGGT AGACAAGAGA CGCTCAAATG AGTATTCATA	480
GGTTTGGATG TCTCTGCTC CCATAAAAGC GTAAACAGCA TTGTATGGT CTAGGAGTGG	540
AGAAACATTT TCAACAGTAA TCACTTGGTG TTTTGTGTG ATTTGTGTGG CTAGGCTCTC	600
TACCTTAAAG TCACCATGAT CTACTTCAGC AGCCGAGCCA TAAATTTGCG CTAGATAAAC	660
AGCATCTGCT TGGTTTAAAG CATGGGCAA GTGCTCCAAC AAGGCAATGG TTCTTGTAAA	720
GGTATGCGGT TGAAGACTG CTACAATTC CTGCTTGGG TATTTCGTAC GAGCGCATC	780
CAAGTCCGCA ATAAATTTCTG TTGGATGGTG GGCAAGTCA TCGATAATCA CTGTATCAT	840
GACAATTTTC TCACTGAAC GACGTTTAA AC CGGCAAT GTTTTCAAGT GCTCACGCAC	900
CAAGTTCAAA TCAAACTCTG CTGTGTAAAG AAGACCAAT AC GCGCTGTCG CATTCATGAT	960
ATTGTGACGA CCAAGAGTTG GAATGTGGAA TTGCCCAAG TTTTGTCCAC GGAATGAAC	1020
GGTGAAGGTT GAACCATTA TTGAACGAG AAGTCACTA GCTACAAAGT CATTCGCTTC	1080
AGCTTCAAAA CCATAATAAT AAATGGTGC ATCAGACGTA ATCTTACGCA ATTCAGCATC	1140
TTCAACATAG ACRAAAGAC CCTTGGTGAT TTGTTTGGCA TAGTCGTTAA AGGCATTTAA	1200
AACATCCCTG AGACTTGTGA AATAATCTGG ATGGTCAAAG TCAATGTTGG TGATAATAGA	1260

GTATTTCTGGG	TGXTAAGCA	TGAAGTGACG	CTCATATTCG	TCAGATTCAA	AGACAAAATA	1320
TTTGGCATTG	GCCGAACCAC	GACCTGTCCC	ATCTCCAATC	AAGAAGCTGG	TATCTGTAAT	1380
GTGAGACAAG	ACATGAGACA	ACATAOCTGT	CGTGAAGTT	TTTCCATGTG	CTCTGCTAC	1440
TCCCATTGCTA	ACAAAGTCAC	GCATAAGCT	ACCTAGAAAC	TCATGGTAAC	GTTTGTAGCT	1500
GATACCATTT	TGGTCCGCTT	AGGCAATTTC	GACOTTGTTA	TCTGGACGAA	AGGCATTTCC	1560
AGCGATAAAT	TCCATATCAC	CGTCTAGATT	TTTTTCATCA	AAAGGAAGAA	TGGTAATTC	1620
TGCCCTGCTCA	AGACCGCOTT	GGGTAAAGTA	GTACTTTTCA	ACATCTGATC	CCTGAACCTT	1680
GTGCCCCATC	TGGTGCAACA	TCAAGGCCAA	GGCACTCAT	CCTGATCCCT	TAATTCOGAT	1740
AAAATGATAT	GTCTTTGACA	TGTTTTCTCC	CCTATTCTGT	CATCTCGGTC	AGATTCAACT	1800
CTTGGGCCAAC	CCGACGTTCT	TGTTCTGTTT	GTTTACTTTT	TTTATTGTAG	ATTGGCTCT	1860
TCCTTAGAAA	ATCATAAATG	TTTTCTTTG	GAGCAGTGC	TGACACTTCT	TCATTTCTTG	1920
TAGGATAGA	ATGAATCTCT	TCCGCCAAGA	TATAATGAGA	CTGGGTCAAT	TTTTCGCTAT	1980
ATTTGACAAA	TTACACAGGA	TTTTCCTTTT	GGAAAGGAGC	TGTCGGTGA	TTGCCCTGTC	2040
TAACTAGACT	GGGCTGAGAA	TGACGTCCTG	CAAGGCTGAA	ATCCTGAGTT	AGTAGTTAG	2100
CAGAGCGTTT	CTTTTTCAG	TCCGCAOOG	CTTCTTCAAG	GGCCACCTCC	GCAATGCTCT	2160
TTCTTCTT	TTTAACCCCT	AAAGGAGCCT	TTTLAGGTTT	TTGACTTGC	TTTTCAATCG	2220
GTTFPACTGG	TTTTTCTTCA	GCAATAGGAG	CCCATTCTAA	MTAAATTTTA	TCTGATACT	2280
CACCCCTGAT	ATTACTGATC	AGATCAGACT	CATCATAGAG	ATTCAATGACT	GGCATTTTCAG	2340
TCAACATGAC	CTCGTCATCT	GACACCAATG	GAAATCGTTC	TGTGTTCAAT	TTCTATTTC	2400
TTTCAACACT	TCATTATAGC	GTATTGTCTT	GATTTTTCAA	GTGCTGSCCT	CAGAAATTC	2460
CAAAATTTCT	CTAATTTCTG	CTAGGGTCAG	ACTACCACTG	GACTCTGTGC	CGTCCAATAC	2520
TTGTGACACC	AGATGTTTCT	TTTGTCTTG	GAGTTCCTGA	ATTTTTTCTT	CAATGGTTCC	2580
CTTGCTCACC	AAGCGATAGA	CCTCAACCGT	TTCTTCTGA	CCCATCCGAT	GGGCACGGCC	2640
AATGGCTTGC	GCTTCCACC	CAGGATTCCA	CCAAAGGTCA	ACCAAGATCA	CTGTATCTGC	2700
ACCTGTACAG	TTCAGACGA	CCCCACCAGC	CTTGAGGAA	ATCAGAAAGG	CATCTCTTTC	2760
TCTTGTGTTA	AAGGCTTTGG	TCAATGCTTG	TCCTTCTTGG	GCTGGGGTTG	AACCGGTAA	2820
TTTAAAGGAA	GTACGGCCCA	AGTCTGGGAC	TCTTGTGTTA	ATTTTTTCCA	ACATTCOCTT	2880
GAATGAGAG	AAAATCAAGA	CACGGGTGCC	GCCGTCTGCC	ACCTGFPACCA	GTAGGTCTCG	2940
GAGACTATCT	AGTTTGCCCG	TGGCTCCCTG	ATAATCTTCC	ATAAACAGGG	CAGGAGTGTG	3000

ACATATTGTA CGCAAGCGCA TCAAAACGAGA TAAATTTTCC ACACGACTTC GCTGAATTC	3060
CNTTTCIGAC ACTTTGAGCCA GATGGTCTCG CATCTGTTGT AACTGGGCAA GGTAAATAGC	3120
CTTTTGTGG TCTTCCAGTT CATTTTATTA AACCACTCA ATCAAAGTCG GCAATTCAGT	3180
CAGAACTTCT TCTTTCTTGC GTGCGATCAC GAAAGGCTTG ATAAACTGAG CCACTGGCTC	3240
TGCTGGCAAT TTCATAAAT CTTTCTTGCT TGCCAAAGT CCAGGCATGA CGATTTGGAA	3300
AATAGACCAC AACTCACCCA GATGGTTTTC AATCGGAGTT CCTGACAAAG CAAAGACCGA	3360
CGGACCACA AATTGCTCTA AGGTCTGGGC AATCTTGGTC TGGGCATTTT TCATGACCTG	3420
AGCCTCATCT AAGAAAGGA AGTCAAAGC CATCCCTTGA TAAAACTCAC TGCTCTGACG	3480
GAAGGTGGCA TAGCTAGTCA CATAGATTGG ATGGCTCTCG GCAAGATCT CCTCAGACT	3540
TGCTTTCATA CCATGAACAA CAGTCACATC CAACTGTGGA CAAATTTCT GAAACTCATC	3600
TGCCCCAGTG TAAATCAAC CCGACGGAGC GAGAATCAA ACCCGACTTT CTTTGTGAC	3660
TTGACTAGTC AAAAAAGCAA TGCTCTGAG GGTTTTCCCA AGTCCCATAT CATCAGCCAA	3720
AATCCCAACA AAACCAATAT GATGGAGCAT CTGCAACCAG CCAATTCCT TTTCTGATA	3780
ATCTGCAAG TCAGCCTTGA CTTGAGTTGC TTGCAAAGGA AAGTCTCTCG GATGCGTCAA	3840
ATCTGGGCC AGATTCTGGA ATTCTTGTGA AAAGAAACA CGGTCTCGCC CTTCAAAGAG	3900
ATGAGCTAAA CTGTAGGCCA AGGATTTCGG AGCCTGCAAG GTCCCATCTT TTAATTCAAA	3960
TTGCCCAAGT TCCTGTAGAT TTTGGCGAAT TTTCTGGTT TCTTCATGA AAAAGTAAAC	4020
TTGATTAGAC GAATCAATAT AAAATCCTG ATTGGCAACC AAGGCTGCA TGGCTTGGTC	4080
GATTTCCCTC TGACAAATAT TTTGAAATC AAATGGATT TCCAAGAGAC CTCCTTGGA	4140
GGCAATCTGC ACCTGAGGAC TCGCTAGGCT ATAAAGCTCT TCTAGTTTAT CTGATAGGTC	4200
AACATGCCCG AGTTTTTCAA AGACTGGAAT GATATCATGA AAAAAATGAT AGACAGACTC	4260
CGCTTTTAAAG GCTTGACGCC AAGATTGAAT ATCGGCCCTCA AAGCCCGCAG CCAACAGAC	4320
TTGGAAAAAT CTTTCTCTA AGTCTGCGTC ACTTGAAAAG GGTAAATCTT CTAGCTCTTG	4380
TCGGCTAGAT ACCTGTCTAT TTCCATAATC AAATGAATT TCTAAACGAA TCCGATTATC	4440
TTCTTCCCTG TCAAGTAAA AAGAGGCCGC AAAAGTTTGT ATTGTGAGAC GTTCTGGAGC	4500
TGAACGGTG CCCATCTGGA TAAAAAGAGT CAGACAGGAG GCCAATTTGT CTCGATCACT	4560
GCTATCAAT TGCAAGTATT TCTTCTCTG TTGACCCACA GGTAAACGCTT TAATTTCTCT	4620
GAGAAGACGC ATCTGCTGCT CTGTTAAAAA ATAAACCTGA CTTTATGGA AAAGTACTGC	4680
TCCCTGATAA AAGACATTGA CCTTAGGACT CTCACGTGAT TCCATTTCAA AATAATCCGA	4740
GTATTCCTGT ACTGTAAAG CAAATAGATT GGCATCAGCA TGCATATCTT GAAAAAGCAG	4800

GGTTTGGTAG	CTATCCACTT	GATGGTCAAA	TTGAAAAATG	GGCAAGGCCA	TCAGTAAATT	4860
CACACCCGTC	TCAAAAAAGG	TCAGAGGGAA	AAAGAGGTGC	CGACCTTGGT	TTTGGAAAAA	4920
GAGGTCTGGA	ACCAGCCCTT	CCTCCGTTAG	TCGGTGCAAG	AAAGTCAAAA	GPTCTTGGCT	4980
GGCATCATCA	AAGGCTTCCC	AAGAAAGAGA	CTCCTCATAA	ATCTTGCCAA	TCATATACGA	5040
CTTCTCTCTG	TCGACAATCC	TTAAAAAAGG	TGGAATATCC	CGAATGACAT	AGTATTTTGT	5100
GCTATTGATT	TGGCCGATTG	TCAGAGTCCA	CAAGATATGA	TTGGTCTCTG	CTTCCACCTG	5160
ACCCACAGCT	GATAACTCAT	AGGCGCATTC	TGATTTTGGG	GATAAAATTC	GATCCAAAAA	5220
CTTGCCACCC	AAGTGCACCT	TGGTTTCAAC	AGCCTCTTTF	TCTTCATGAC	CTTCTTCCAG	5280
ACTCCACAAG	ATTTCCGTAC	CACGCTCATC	ATTTTTCAGA	AAATGCTCTA	GCGCTGCCAA	5340
ATGCACACAG	TAGCCCTCTT	TTTGAAGAAA	ATCACAGGCA	CAAAAAACCA	AATCATCCTC	5400
TAAACTATAG	CGCATTTCTT	CTTCTGCAAC	GCGAGGCTAG	AGCCGATTGT	TCTTTTCCCT	5460
GATGATATCA	ACCTTACCAG	TTTCATAAAG	GGCAACACCT	TCGATACGAA	TTTTCCCGCG	5520
AATCAATTTA	GCCATATTTT	CACCTTTAAC	TTATCTTTTT	ATTATACCAT	ATTTTCCGCT	5580
ATGAAATAG	CTTCTAGGA	AGACTTTTCT	CCTAGAAGGC	TGGATTTTTA	ACGTTTGGCA	5640
AAAGTAGCCA	CAATCCGCTG	ACAGACTTCT	TGCAACAGAG	ATTTGGGCAAT	AGCTATATTG	5700
ATCGGGCAT	GGAGACTTCC	TTCTCTCTCA	AAATCCAAAC	CACGGTTGAG	GATAACCTTG	5760
GCTTCATTTC	TCAACAACCT	TTGCAATGTT	TCATCAGTCA	GCTCATAAGC	TGAAAAAGTCA	5820
AGCCAAATCA	AGTAGGTACC	TTGCGGTTTC	ATGACCTTGA	TTTTAGTCTC	TTTTCCAAAT	5880
AGATCCATCA	CATAATTGAT	GTGGTCTTCA	AAGACTTGCT	TGAGTTCTCT	TAGCCAACTT	5940
TTACCGTATC	GATAGGCAGC	TTCTGTCCGC	AAATAACCCA	AGCCTGAAAT	TTCATGCTGA	6000
TTATTGGCCA	ACAGGCGTTT	CTGGAAAGCC	AGTCTCAACT	TAGGATTTTC	AATGACTTGA	6060
TAGGAATTTT	TTGTTCCAGC	AATAATTAAAT	GTTTATGTTG	CACGTCTCAA	GACGATAGCA	6120
AAATTTTGA	AGGCAGGATT	GATGGTATTG	AAAGACTGGT	GTTTGTGACC	AAAGAGGGTC	6180
AAATCTTGGT	GAATCTCATC	CGAACTAACC	AAAACACGTT	GTTTTTGCCA	GAGTTGGCCA	6240
ATCTCTCTCA	ACACTTCTTT	TTCCCAAACA	CGTCCACCAG	GAITGTGAGG	GTTCGAAAGA	6300
ACATAGAGTT	TAACCTCCTC	TTCCACCAAA	TCTTPTTCAA	GTTTGTGAAA	GTCAATCTCA	6360
AACAGACTAT	CTTTTCCAC	TAAGGAATTA	GTAATCAATC	TACGATTATT	CAACTTGACA	6420
CTGCGAGCAA	AGGGTGGGTA	GACAGGCGTG	TTAATTAAAA	CCGCTCCGCC	TTCTTTTGTGA	6480
AAGGTTTGA	TAGCTGTTGA	GATGGCTGGT	ACCACACCTT	CGATAAAGAC	AAGAGCCTCT	6540

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TTGTCAAAGT TGTAAACCGTA TTGTTAGTCT TCCCACTTTT GAACCTCCTT AATTAACTCT	6600
TCACATGGCAT AGGTATAACC ATAAACCAAGT TGGTCTGCTT AAGTTTGAC ACCTTGGCGG	6660
ATTTCAAGGCA AGACCACAAA GTCCATATCC GCTATCCAAG CTGGTAGAAC TTCACTATCC	6720
GTTCCTGTTT CTTCCTATT ATAGGTATGG TGCCCTAAAC GGTGGGCGAG GCTTGTAAAA	6780
TCATATTTC CCATCTTGT CTATCTCTTC TATGGCTTGG CGCAATCTG CAATCAAAATC	6840
TCTAGCATCC TCAATCCCAA TAGACAAACG CAAGAGGTCA TCTGTCAAAC CATAAGAAATG	6900
GCCTACCTCT GCTGGAATAT CAGCATGAGT TTGAGTCTGT GGATAAGTAA TAAGACTTTC	6960
CACCTCCACC AAACCTTCCG CAAAAGAGAA GACCTTGAGA CTGTTCAAAA TATGAGGAAT	7020
GCCTGTTTCA TCGGCTACTT TAAAGGAAAT CATGCCTCCA CGACCAAGTT AGAGAACCTC	7080
CTTAACCTCT GGAGAACTCT TCAAAAAGGC AACCCTCTCT TGGGCGTTAG CTCTGAGCG	7140
CTCCAATCGA AGAGACAAGG TCTTGAGACC ACGAAGCAAC TGGTAGCTGT CAAATGGAGA	7200
CAAGACTGCC CCTGTGTAT TAAGATTGTA AAAAAGCTTC TCGTATAGTT CTAAGCTATT	7260
GGTCACAACC ACTCCAGCCA AGACATCATT GTGGCTCTCT AGATACTTGG TTGCTGAATG	7320
GAGAACGATA TCTGTCCAT CTCAATCGG ACGTTGGTAG ATAGGGCTAT AGAAGGTATT	7380
GTCCACCACC ACTTTGGCAC CCTTAGCATG AGCCAATTTT GCTAGTTTTT CGATATCAAA	7440
TTCCAACATC AAGGGATTGG TTGGGGTTTC GATATAGAGA ACATCCACAT CCTTTCTCAA	7500
CTGGCAATC AACTCTCTCT CTGTATTGGC ATAGGTAAAA TGGAAATGAC CTTCCTGCTC	7560
CACCTGGTTA AACCAGCGAA AAGAACCAAC GTAAAGATCA CGCACTGCCA AGACCTTACT	7620
TCCTACTGGA AAGACGCTAA AGGCCAGTAC AATAGCTGAC ATCCCTGAGC TAGTCGCTAG	7680
GGCATAGTCT GCTGACTCAA TAGCCGCCAA GACTTCTCTA GCCTTACTAC GAGTTGGAAT	7740
TTTAGTGGCG GTATAGTCAA ACCCAGTAGA TCGACCAAC TCTGGATGCT GATAGGTGCT	7800
TGAAAAATGA AGTGGGTGCA CCAAGCACG TGTGCTCTCA TCAGACTTGA TCCCTGCTTG	7860
TGCTAAATAT GTGTAATCT GTAAATCTCT GCTCATACAA TTCTTCCAAA TCTATAGTAA	7920
CTATTGTACC ACTTATTTTG TATCCTTCTG TTCTTGTGTT TCAAGAGCTA GTTATAGTTT	7980
CAACATATAT AAAAAGGAG TTCTTCTCTG TCCCTTTAAT AGACTATAAA ATGGTGAATC	8040
TCAAAAGACA CCTTCACTCT ATCATTGTCT CTGCACTAAA ACGAGCATAA CGCTCATGAT	8100
TTTCCAGTAG TTCTTATGTA GTTCTGAGC CAGTGATTTT CCCCTCTCTT AAGAAGAAAA	8160
TACAATCCAC ATCTTTTACC GTTGACAAAC GATGGCGTAT AATCACAACC GTCTTCTCCT	8220
TTAGTACAGA ATAGAGGCTA CTGATAATCG CATACTCAGA ATCCGCATCA AGATTAGCAG	8280
TGGCTTCATC AATATATAGA ATTTGAGCAT CTTTAAAGTA GGCTCTAGCT ATTTGAAGTC	8340

TTTCGTTCGC CCCCTGACA AGAGTCGTCC GCGTTCACCA ACTTCAGTAT CTAGTCCCTC	8400
TTTCATGAG CGAATCTCAT CACCTAGTGA TACTAAGTCT AGCACTTTCA TCAATTCATC	8460
ATCAGTTACT AAGCGATTCA AACCGAGACA AAGATTGTCA CGAATACTGC CAGATAAGAC	8520
TGCATTATTT TGTGAACC CC AAGCGATTTT ACTTCTCCAT TCTTTTAAGT TAAATCATAT	8580
TATACTTTGAT TGCTCCATTA GAATATCTCC TGAAGCGGT TTATAAAACC GCTCTAACAA	8640
ACGCACAATC GTTGATTTTC CTGATCCAGA TGTCCCAACA AAAGCAATTT TTGCCCCCTT	8700
GAATTTGAA CAAGTAATAT CCTTTAAGAC AGTCGATTT TCATCATAAC CAAATAGAC	8760
ATGGTTAAAA TTCAACCCCT CTCCTGATAC CGATTTTCTT CCTCAAAAT TTTCCTTAGC	8820
AACGCAAGC AAGTCTCCA GTGCAACTGA AGATCCCTTG CTCCTAGAAT AAACAGTTAC	8880
AAATTAGCT ATATTACTAA TAGGATTAAG TAATTGAAAG AGGTAAATCA AAAACGAAAC	8940
CAAGTTTCCC ACAGATATAT ATCTCGGCT GACCCGATAA CCCCCTAGG TTAGCATCAC	9000
AGCTATAGTC GCAAAGATAA ATAAGAGAGC AAACGGGGTC TCAAAAGAAG TAACCTTATC	9060
TGATTTCACT GAATGTGTTT GTACCCCTTC AATACAAAT TCCAAACAT CCTGTACACT	9120
TTTCTCTGCT TGGTTAGTCT TAATTAATTC ATGTTCTTGA ATCTTTTCAG TCAATGCGCC	9180
TGTTAAATTT CCTCCTGTAA ACGACGACTA TACTTTTCCAT TGATATTGGA AAGGGCAAG	9240
ATAATAAACA TCATACAAGG AAGAGTGATG AATAAAGTA GAGAAAGATT CCATCAAGA	9300
CTAAATAAGA CTACAATGGA ACCAAGTACC ATAACATAAC TCAGAAATAT ATTGGGAAA	9360
GTGTAATTA AAAACTCACG AATGCACTC GTGTCAATGA CAATGGCAGA AGTCAACTCC	9420
CCACTTTGGC TCTTATCAA GAAGGATTTT CTACATAAA TCAACCCCTC TATCACTTTT	9480
TTCTGATTT TTGCTATCTT TTTTTCACCC GATTGACTAA ACAGATAGTA ACCAATAGAA	9540
GAARCAAGG CTTGACCAAT AAAATCAAA AACGATTGAA ATACTTTGGA GCCTATATTT	9600
TCAATAGAAC TCCATCTAT TAAATCCTTT AAGATAAGG GAAGCAACA AGCAAGTAGA	9660
CTAGACAGAA CAAGTAAGAA ACTCCCCATA ATCACTTAG TATCTACTCT TAATAATTTT	9720
AATTTCAATA ATACTCTCTA TAATATTTCA ACGGATAAAG TCGGGAATAA CTCATTTTGA	9780
GGATAAATC TAATAAATCT TCTATAACA AAACGCATAA CATCTAGGAT TTTATATACC	9840
TGATATTATG CGTTTITTAAG CACAAGACT TCTTACAAA ACTTATCTAC AATTAGATTT	9900
TATTTGACAT GTTTTGCCAA TTCTTCTTGG GCTTTTTTAT TGGATTCTTC TTTTCTTTC	9960
AACCATTTTT CTCTGCTTTT TGCATATCG TCTGTTGTGA CAATCTTATC TTGACTTTG	10020
AGGTATTTAT ATGATTCAC CCCTTTTGT CCGGTTAAAC CATAGGCAGC AGCAATGCT	10080

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ACGGTTCTTC TCAATGATGG TGTTCCTCCA CGCGAAACAC TTGGAAGAAC TAAAGAAGCTA	10140
TCAATCGAAC AAGCTTGAAT ATCAGCATAT TTCTCATTAAC GTTTGGCCGG ATCTTGCTCT	10200
TTATTAGCTT CTTCACACAT TTGAGTATAG ACATCCAGTC CAACTGCCTT AGCCTTGCTA	10260
TTGGCTTCAC CAGGCTCTAG TCCAAGATTT TGCAGAAATC CTCCACTATT AGTAATTAATA	10320
ATATCGAGAT AGGTTGACGG GTCTTGATAA TCAGGTCCCC AACCOCCTAT ATATAAATCA	10380
TAATCTTTCT GAGCAGCTGT TTGAGCAAGG TAGCCTGAAC TGTCAAACTC ATCTGATGTT	10440
AAATGCTGAA TGTCATCAC TACATTATCA GAACCTAAAA CAGATTCAAT TGATTGTTTG	10500
ATAGAACTAA CTCTCTGTAT GCCTACTTTA TCTGTTACTT CCACAGTCTT ATCCAAGTGG	10560
ATTGGGAATT GAACACCTTT TGCCTCGAGT TCTTTCTTAG CTTCGCAAA CTTAGCCTTG	10620
GCTTCTCAG GATTGTAGTA AGGCTCTTGA CCATCCGCAA AGTTGATACC TTGCCATTCC	10680
TTACCATAGT TGACCATCTT AGAGGCTACA ACTTCACCAA AGTCTTTTCC CTGTACTGCT	10740
ACAAAGTTTG GAGGAACAC TAGGTTACGC AAAATCTTTG TTGCACCTTC TTTCCCTTCA	10800
GACTGAGCCC CATAGATGT TCTGTCAAAA GCAAAATTGA TAGCCTGACG GAAGTTTTTA	10860
TTGAGAAGTG CTTCCTGAGT CGATTTCTTT TCAATGTAC TGTGTTTAGA AGTATAATTG	10920
TAAGACTTCC TATCTAGGTT AAAATTAAAG AAATATGAAG TTGAATTTTG CATACTATAG	10980
ATGATATGTT TTTTGATATT TTCTTTAATC CTTTCATAGC TGGAGCTGTT AGGAAAAAGA	11040
CGAGCCGTAG TATAAGCACC AGCTGTAAAA TTACGTTCCA GTGATTCTTG GTCGCTACCA	11100
TCATAGTAGT TCAATTTTAC ATCGTCTACA AAGACATCTT TAGCATCCCA GTAATTAGGG	11160
TTTTCTTTAT ATTCAATAGC AGATTTTGAG ACAAGTGCTT TCATCAAGAA AGGTCCATTG	11220
TACAAAATAC TAGATGATC CGCCTTCCCA AAATCATCCC CTTTTGATTT CAGGAAATCT	11280
GCATTAACAG GAAAAAGTAT CGTTGCAAGT GTTTTGAAT TCCAGTAAAG TTCTGGTTTA	11340
ACCAAAGTAT ATTGAACCGT TTGGTCATCA AGTGCCCTGA CACCGACAGT TGAAGATCG	11400
CTTGTTTAC CAGTGATATA GTCATCCAAA CCAGCAACAG AGTCCGTCAC TAGATACAAG	11460
GCTTCTGATT TTTTATCAGC TGCATATGTC AAACCTGTCA CAAATCCTG GGCAGTTACA	11520
GGCGCATATT CTCTCCCTC AGAAGTAAAC CACTTGCCAT CCTTACGAAG TTTGTAGGTA	11580
TAGGTCAAAC CGTCTGAGA AACAGTCCAA TCCCTGCTTA ATGATGGAAT AATAATCCCA	11640
TATTGGTCAT TTCTCAATAA CCCGCTACAC AAATTTGCAA CAATATCGGA TGTGCTGGC	11700
CGGTTTTCTG CTAGATAGTT CAAGCTAGAT GGATCACTTG AATAAACATA GTTGTAGGTT	11760
TTTGACGCGG TGCTAGAATT TCCACACGCG CTCATATAAA CTCCTGTACC CAGGACAAGA	11820
CCTGCCAAGG TTAGATATTT GCTCTTAGAC TTTTTCATTT CCGG	11864

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(2) INFORMATION FOR SEQ ID NO: 62:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 2412 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 62:

TAATGCACT AAACATAATA TANGGAGAGA AAATGTCTGC AATAGAAGGT ATTACAAAAG	60
CTGCTCACT AATTGATATG AACGATATTA TCCGTGAAGG GAATCCTACT CTACGCGGA	120
TTGCTGAGGA AGTCACTTTC CCCCTATCTG ACCAGGAAT CATCCTAGG GAAAAGATGA	180
TGCAATTCCT TAAACATTCC CAAGATCCTG TCATGGCTGA AAAAANTGGGA CTCGCGGTG	240
GTGTTGGACT GGCTGCTGCC CAGTTAGATA TCTCAAAACG CATTATCGCT GTTPTGGTAC	300
CTAATATTGT TGAAGAAGGC GAAACTCCAC AGGAAGCCTA CGATTGGAA GCCATTATGT	360
ACAATCCAAA AATCGTCTCT CACTCTGTTC AAGATGCTGC TCTTGGCGAA GGAGAAGGTT	420
GCCTGTCTGT TGACCGTAAC GTGCTTGGCT ATGTGTGTCG CCATGCCGCG GTTACTGTGG	480
ACTACTTTGA CAAGAATGGA GAAAAACACC GTATCAACT CAAAGGCTAC AACTCCATTG	540
TTGTTGAGCA TGAAATTGAC CACATTAACG GTATCATGTT TTACGATGCG ATCAATGAAA	600
AAGACCCATT TGCAAGTAAA GATGGTTTAC TGATTCTTGA ATAAAGAAAA TCCGTTGCA	660
AGACCGGTT TTGTGTTATA ATAGAGGCAT GAAAAACAAAT GATATGTCT ATGGTGTCCA	720
CGCCGTACCG GAAGCCCTCC TTGCAAAATC AGGAACAAA CTCTACCTCC AAGAAGATCT	780
CCGAGGTAAAG AATGTTGAGA AAGTCAAGGA ACTAGCTACA GAAAGAAGG TGTCCATTTC	840
TTGACATCA AAAAAATCTC TCTCTGAGAT TACTGAAGGT GCTGTTTCATC AAGGTTTGTG	900
TCTACGAGTG TCTGAATTGG CCTATAGCGA GCTAGATTAC ATCCTTGCAA AAACACGCCA	960
AGAAGAAAAA CCACCTCTAT TGATTCTAGA TGGTCTAACC GATCCCATA ATCTGGGTTC	1020
TATCTTGCGA ACAGCCGATG CGACCAATGT TTCAGGTGTC ATCATTCCCA AGCACCGTAC	1080
TGTGCGAGTA ACTCTGTGCG TTGCCAAAAC AGCCACAGGT GCTATTGAAC ACGTCCCAAT	1140
TGCCCGAGTG ACCAACTCA GTCAAACTT AGGATAAACT TAAGGATGAA GGTTCCTGGA	1200
CCTTTGGAAC GGAATTGAAC GGTACTCCTT GCCACAAGTG GAATCAAAA GGGAAAATCG	1260
CCCTCATCAT TGGAATGAA GGAAGAGTA TCTTAGCAA CHTCAAAAA CAGGTGATG	1320
AAAATGATTAC CATTCCGATG AATGGACATG TTCAAAGCCT TAATGCCAGT GTTGCTGCGG	1380

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CCATCTCAT	GTACGAAGTT	TTCCGAAATA	GACTATATAA	AAGTTTCCAG	TCATCTGATT	1440
GGAAACCTTT	TATGATTAA	CTATGTTCTG	TAATGAATTT	ATAGGCTTCT	TGACCAAGCA	1500
TAGCTCCATC	TCCAACCGCT	GTGTACTT	GGCGAAGGTC	TTTCAAGCGA	ACATCTCCAA	1560
CTGCAAGAT	ACCGTCGACT	GCAGTTTTC	TGTGGTTATC	TGTCACAATC	CATCTGCCT	1620
GATCTTGGAT	ATTCAATTCT	TTACAAAAT	CGCTAAGAGG	GTCCAAACCA	ACATAGATAA	1680
AGACACCACC	GAAGGCTTGT	TCGTCACTT	GACCTGTTT	CACATTTTCA	AATACGACTG	1740
ATTCTACTCG	GTTTTCACCC	TTGATTTCCC	TTACTACAGA	ATCCCAGATA	AAGCTGATTT	1800
TTTCATTGCG	AAAGGCGCGA	TCTTGTAAA	CTTTTGGGC	ACGAAGTTGG	TCACGACGT	1860
GAACAATGGT	AACAGTCTTA	GCAAAACGAG	TCAAGAAGAG	GGCTTCTTCA	ACAGCTGAAT	1920
CTCCACCACC	AACTACCAAT	AAATCTTGGT	CACGAAGAA	AGCAOCCATC	CACACAGCAC	1980
AGTAAGAAAC	ACCAACGACT	TTCACTTCTT	CTTCTCCAGG	CATCCCAAAA	GGACGGTGT	2040
TAGAACCAGT	TGCTACGATA	ACTGTACGTG	TTTCATATGT	TTGGTCATCA	GTCACTACTT	2100
TCTTAAATC	ACCATGGCTT	CGACATTTTC	AACATAACCA	TAAATGTGCT	CAACACCAAG	2160
ATTTTCAAGT	GGTTCAAAAC	TCITTTTTCAGC	CAATTCAGGT	CCACTAATAT	TAGCGTATCC	2220
TGGTAAATTT	TGATATACAG	ATGTATTATT	CATCTGACCA	CCTGGCAGAC	CACCTTCAAT	2280
CAAAGCTACT	TTTAGATTGC	TTGAGCAGC	ATACAAGGCC	GCAGTCATCC	CTGAGGTCC	2340
AGCAOCCGATA	ATAATAGTAT	CGTACATATA	GATTCCTTCT	TTCTTGGTGT	AACTATCTTT	2400
ATTCTAACTC	TG					2412

(2) INFORMATION FOR SEQ ID NO: 63:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7760 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 63:

CCGATTTCGT	GGAAATTTTG	TCTCATCAT	TAGAAGGTGT	TGCAAGAGCA	GAGTTTACCT	60
TGGTGCTTCA	TACCAAAATG	GGAGAAGCCT	CTGTTTGGC	AAATATTGTA	GATGTAAACA	120
AGGATGAATG	GATTTAGGA	ACAGTGTCTG	GTGCCAATAC	CTTATTGOTT	ATTGTGAG	180
ATCAGCAGCT	TGCCAACTC	ATGGAAGATC	GTTTGCTAGA	TTTGATGAAA	GATAAGTAAG	240
GTCTGGGAG	TTGCTCTCAA	GACTTATTTT	TGAAAAGGAG	AGACAGAAAA	TGGCGATAGA	300
AAAGTTATCA	CCCGGCATGC	AACAGTATGT	GGATATTAAA	AAGCAATATC	CAGATGCTTT	360

TTTGCTCTTT CGGATGGGTG ATTTTATGA ATTATTTTAT GAGGATCGG TCAATGCTGC 420
 GCAGATTCTG GAAATTTCC TACGAGTCG CAACAAGAAT GCCGACAATC CGATCCCTAT 480
 GCGGGGTGTT CCTATCATT CTGCCAACA GTATATCGAT GTCTTGATTG AGCAGGGTTA 540
 TAAGTGTGCT ATCCGAGAGC AGATGGAAGA TCCTAAACAA GCAGTGGGG TTGTTAAACG 600
 AGAGGTTGTT CAGGTCAAT CGCCAGGGAG AGTGTGCGAT AGCAGTAAGC CGGACAGTCA 660
 GAATAATTTT TTGGTTTCCA TAGACGCGGA AGGCAATCAA TTTGGCCTAG CTTATATGGA 720
 TTTGTGTCAG GGTGACTTTT ATGTGACAGG TCTTTTGGAT TTCACGCTGG TTTGTGGGGA 780
 AATCCGTAAC CTCAGGCTC GAGAAGTGGT GTTGGGTAT GACTTGTCTG AGGAAGAAGA 840
 ACAJATCCTC AGCCGCCAGA TGAATCTGOT ACTCTCTTAT GAAAAAGAAA GCTTTGAAGA 900
 CCTTCATTTA TTGGATTGTC GATTGGCAAC GGTGGAGCAA ACGGCATCTA GTAAGCTGCT 960
 CCAGTATGTT CATCGGACTC AGATGAGGGA ATTTGAACCA CTCAAACCTG TTATCCGCTA 1020
 CGAJATTAAG GATTCTTTC AGATGGATTA TGGACCAAG GCTAGTCTGG ATTTGGTTGA 1080
 GAATGCTCGC TCAGGTAAGA AACAGGCAG TCTTTTCTG CTTTGGATG AAACCAAAAC 1140
 GGCATGGGG ATGCTCTCTT TGCGTTCTTG GATTCATCGC CCTTTGATTG ATAAGGAACG 1200
 AATCGTCCAA CGTCAAGRAG TAGTCAGGT CTTTCTCGAC CATTTCTTTG AGCGTAOTGA 1260
 CTTGACAGAC AGTCTCAAGG GTGTTTATGA CATTGAGGCG TTGGCTAGTC GTGTTTCTTT 1320
 TGGCAAAACC AATCCAAAGG ATCTCTTGCA GTTGGGACT ACCTTGTCTA GTGTGCCAG 1380
 GATTGCTGCG ATTTTAGRAG GGATGGAGCA ACCTACTCTA GCCTATCTCA TCGCACAACT 1440
 GGATGCAATC CTTGAGTTGG AGAGTTTGAT TAGCGCAGCG ATTGCTCCTG AAGCTCCTCA 1500
 TGTGATTACA GATGGGGGAA TTATCCGGAC TGGATTGAT GAGACTTAG ACAAGTATCG 1560
 TTGCGTTCTC AGAGAAAGGA CTAGCTGGAT TGCTGAGATT GAGGCTAAGG AGCGAGAAAA 1620
 CTCTGGTATC AGCAGCTCA AGATTGACTA CAATAAAAAG GATGGCTACT ATTTTCATGT 1680
 GACCAATTGC CAACTAGGAA ATGTGCCAGC TCACPTTTTC CGCAAGGCGA CGCTGAAAAA 1740
 CTCAGAACGC TTTGGAACCG AAGAATTAGC CGGTATCGAG GGAGATATGC TTGAGGCGCG 1800
 TGAGAAGTCA GCCAACCTCG AATACGAAAT ATTTATGCGC ATTCGTGAAG AGGTGCGCAA 1860
 GTACATCCAG CTTTACAAG CTCTAGCCCA AGGAATTGCG ACGTTGATG TCTTACAGAG 1920
 TCTGGCGGTT GTGGCTGAAA CCCAGCATTT GATTCGACCT GAGTTTGGTG ACGATTACAA 1980
 AATTGATATC CGGAAGGGC GCCATGCTGT CTTGAAAAAG GTTATGGGG CTGAGACCTA 2040
 TATTCCAAT ACGATTGAGA TGGCAGAAGA TACCAATATT CAATGCTTA CAGGCCAAAA 2100

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CATGAGTGGG AAGTCTACCT ATATGCGTCA GTTAGCCATG ACGGCGGTGA TGGCCACGCT	2160
GGGTTCCTAT GTTCTGCTG AAAGGCCCCA TTTACCGATT TTTGATGCGA TTTTACCGG	2220
TATCGGAGCA GCAGATGACT TGGTTTCGGG TCAGTCAACC TTTATGGTGG AGATGATGGA	2280
GGCCAAATAAT GCCATTCGC ATGCGACCAA GAACTCTCTC ATTCTCTTTG ATGAATTGGG	2340
ACGTGGAACCT GCAACTATG ACGGGATGGC TCTTGCTCAG TCCATCATCG AATATATCCA	2400
TGAGCACATC GGAGCTAAGA CCTCTTTGC GACCCACTAC CATGAGTTGA CTAGTCTGGA	2460
GTCTAGTTTA CAACACTTGG TCAATGTCCA CGTGGCAACT TTGGAGCAGG ATGGGCAGGT	2520
CACCTTCCTT CACAAGATTG AACCGGGACC AGCTGATAAA TCTACGGTAT CCATGTTGCC	2580
AAGATTGCTG GCTTGCACG AGACCTTTTA GCAAGGGCGG ATAAGATTTT GACTCAGCTA	2640
GAGAATCAAG GAACGAGAG TCTCTCTCCC ATGAGACAAA CTAGTGTCTG CACTGAACAG	2700
ATTTCACTCT TTGATAGGC AGAAGAGCAT CCTATCCTAG CAGAAATPAG TAAACTGGAT	2760
GTGTATAATA TGACACCTAT GCAGGTTATG AATGCTTAG TAGAGTTAAA ACAGAAACTA	2820
TAAAACCAAG ACTCACTAGT TAATCTAGCT GTATCAAGGA GACTCTTTG ACAATTCTCC	2880
ACTTTTTTGC TAGAATAACA TCACACAAAC AGAATGAAAA GGAGCTGACG CATTGTGCT	2940
CCCTTTTGTG TATTTTTTAA GGAGAAAGTA TGCTGATTCA GAAAATAAAA ACCTACAAGT	3000
GGCAGGCCCT GGCTTCGCTC CTGATGACAG GCTTGATGGT TGCTAGTTCA CTCTGCAAC	3060
CGGGTTATCT GCAGGAAGTC TTAGGGGCC CCTTACTTGG GAAATATGAA GCTATTATATA	3120
GTATCGGGC TTGGTTGATT GGTGTGGCGG TAGTCGGTCT AGTTGCTGGT GGACTCAAAG	3180
TTGTCTCTCG AGCCTATATT GCCCAAGGAG TTTCATCOGA CCTTCGGGAG GATGCTTCC	3240
GTAAAAATCA AACCTTTCTT TATGCTGATA TTGAACAATT TAATCGGGGA AATCTAGTCG	3300
TTGGAATGAC AATGATATC AACGAGATTC AGAACGTTGT CATGATGACC TTCCAAATTC	3360
TTTTCAGACT TCCCCTCTTG TTCATCGGTT CGTTTATCCT AGCGGTTCAA ACCTTACCTT	3420
CTCTGTGGTG GGTGATTGTT CTCATGGTAG TCTTGATTTT TGGTTTGAAT GCTGTCAATG	3480
TGGGAATGAT GGGGCTCGGT TTTCGCAAGT TTCAAAACCT TCTTGACGCG ATCAATGCCA	3540
TTGCCAAGGA AATTTACGT GGCCTTCGTG TGGTCAAGTC CTCTTGCCAA GAAAGAGAC	3600
AATTTGCTAA GTTTACAGAG GTCTCAGAC AGCTTCTTGG TCAAAAACCT TACATTGGTT	3660
ATGCTTTTTT AGTAGTGGAA CCTTTATGTA TGTGTGTGG TTACGGGGCG GTCTCTCTCT	3720
CTATTTGGCT GTTCGGGGA ATGGTTCAGT CGGATCCGTC TGTTGTTGGT TCCATCGCTT	3780
CTTTTGTTAA TTACCTAAGC CAGATTATCT TTACCATTGT TATGTTTGA TTTTGGGAA	3840
ATTCTGTCAG CCGTGCAATG ATTTCCATGC GTCGTATTCG AGAAATTTCT GACGCAGAC	3900

CAGCTATGAC CTTCAAGGAT ATCCCAGATG AAGAGTTGGT TGGAGTCTT AGCTTTGAAA 3960
 ATGTGACCTT TACCTATCCA ATGGACAAGG AACCGATGCT GAAAGATGTG AGCTTTACTA 4020
 TTGAACCTGG TCAAATGGTT GGTGTAGTTG GAGCGACTGG TGCAGGAAAG TCACCTTTGG 4080
 CTCAAATGAT TCCACGCTC TTTGATCCAC AGGACGGGAC CATTAAATC GGTGGCAAGG 4140
 ATATTGAGAA AGTGAGTGAA GGAACCGTGC GTAAACAGT TCCATCGTT CTCACACGTG 4200
 CCATTCTTTT TAGTGAACG ATTGCAGATA ACTTGAGACA GGGGAAGGGG AATGCTACTC 4260
 TATTTGAAAT GGAGCGCGCA GCCAATATTG CCCAGGCTAG TGAATTCATT CHTGATATGG 4320
 AGAAAACCTT TGAAAGTCCA GTTGAAGAAC GGGGAACCAA TTTCTCTGCT GGACAAAAC 4380
 AAAGGATGTC GATTGCGCGT GGGATGTCA GCAATCCAGT TATTTCTGATT TTTGATGATT 4440
 CGACCTCAGC CTGGGATGCC AAATCAGAGC GCTTGCTGCA AGAAGCTTTG AATAAGGACT 4500
 TGAAGGGGAC GACAACCAT ATTATTGCTC AAAAAATTAG CTCGGTTGTC CATGCAGACA 4560
 AGATCTTGCT TCTAAATCAA GGACGATTGA TTGGTCAAGG TACGCATGCA GACTTGGTTG 4620
 CCAACATGC CGTTTACCGT GAAATCTATG AAACACAGAA ATGAAAGACA AACTATAAGA 4680
 AAAGTCAATA GTTTTATCTA AACTATTTCT TATTTCAATT TGATGATTTG GCGATGATTT 4740
 TAGAGCAGCG CAAAAAGCCC TTGAAAAAGT CCAATTTTTTC AAAGCTAATC CTGTGTTAAT 4800
 TTCAGAAATT ACATCACTTT TTGTTCTGCA AATGGCAGCT CTTTTTTTAG GATATAAAC 4860
 AGGGTTCGGA TAAGTTTTTT TGCAAGGTGG ATGATGGCTA CATGTGAATG TTTTCCTTGT 4920
 TCTAATTTAG TCTTAAGATA GGCCTTAAAA GCAGGCGAAA AGCGAGGGCA TGCTTTGGCA 4980
 GCTTGATGTA GTACCTACCG CAGATGAGGG GAACCTCGTT TGACCATTTCT TCCTGCTAAA 5040
 TCAATCTGAT CTGACTGATA AATAGAAGAA TCCAGTCCAG CGAAGCTTG TAATGAGCA 5100
 GGATATCAA AGGCATGAAT ATTTGGAATC TCAGCTAAAA TGACCGCCCC TAAACGATCC 5160
 CCAATCCAG TAACCGTCTT GATGACCGAG TTGAACCTAG CCATCAAGTC ATTGACACAT 5220
 GTTTCGCCCT TGTCATGAG CCTCTTGTA TGTTTGATGT TTTCAATACA CGAGATAAAA 5280
 CGTCTATGCG TTATCAAACCT CATTACCAAT TAAAAAATA AGCTGTGGTT AGATCCTTTC 5340
 GGAATTTGTC AAGCGATTGG AGGAAATGAA CTAATCCACA GCGGCTTATT CCAATATATC 5400
 CACTTTGGCT TTGGCAGTAG CTAACCTGCG TAATATATAT ATAAGGAGGA GTAAATGAA 5460
 GACAGTTCAA TTTTTTTGGC ATATATTTAA GGTCTACAAG TTCTCATTTG TAGTTGTGAT 5520
 CCTGATGATT GTTCTGGCGA CTTTTGCCCA AGCCCTCTTT CCAGTCTTTT CTGGAAGAAG 5580
 GGTGACGCAG CTAGCCAAAT TAGTTCAAGC TTATCAAAAT GGCAATCCAG AACTTGTATG 5640

GCAAAGCCTA TCAGGAATCA TGGTCAATCT TGCCCTGCTG GPTTGGTTC TATTTATCTC 5700
 TACTGTAAATA TACATGTGTC TCATGACGCG COTGATTGCA GAATCGACCA ACGAGATGCG 5760
 CAAAGGCCTC TTTGGTAAAG TTGCTCAGTT GACGGTTTCT TTCTTTGACC GTCGACAAGA 5820
 TGCGGATATC CTGTCTCATT TTACCAAGTA TTGGGATAAT ATCCCTCAAG CCTTTAACGA 5880
 AAGCTTGATT CAGGTCAATGA GCAATATTGT TTATACATT GGTCTGATTC TTGTCAATGTT 5940
 TTCGAGAAAT GTGAGCTGGG CTCTCATCAC CATGCCCAGC ACCCCATTGG CTTTCCCTAT 6000
 GCTGATTTTC ATCTGAAAA TGGCAGCGAA ATACACCAAC CTCACGAGA AAGAGGTAGG 6060
 GAGCTCAAC GCCTATATGG ATGAGAGCAT CTCAGGCCAA AAAGCCGTGA TTGTGCAAGG 6120
 AATTCAAGAG GATATGATGG CAGGATTTCT TGAACAAAAT GAGCGCGTGC GCAAGGCCAAC 6180
 CTTTAAAGGA AGAATGTTCT CAGGAATTCT TTCCCTGTC ATGAATGGGA TGAGCCTGAT 6240
 TAATACAGCC ATCGTCAATCT TTGCTGGTTC GGCTGTACTT TTGAATGATA AGTCFATTGA 6300
 AACCAAGATA GCCCTAGGTT TGATTGTTAT GTTTGCACAA TTTTCACAGC AGTACTACCA 6360
 GCCTATTATC CAAGTTGCAG CGAGTTGGGG AAGCCTTCAG TTGGCCCTTA CTGGAGCTGA 6420
 ACGAATTCAG GAAATGTTTG ATGCAGAGGA GGAAATCGGA CCTGAAAAGG CTCACACCTT 6480
 CACTAAGTTG CAAGAAAGTG TTGAATTCAG TCATATCGTT TTTTCATACT TGCCCTGATAA 6540
 ACCTATTTTG AAGATGTCA GCATTTCTGC CCCTAAAGGC CAGATGACAG CAGTTGTTGG 6600
 GCCGACAGGT TCAGGAAAAA CGACTATTAT GAACTCATC AATCGCTTTT ATGATGTTGA 6660
 TGTGTTGTTG ATTTATTTTG ATGTTAAAGA CATTCGTGTC TATGACTTAG ATAGTCTTAG 6720
 AAGCAAGGTG GGAATTTGAT TGCAAGATTC GGTCTGTTT AGCGGAACGA TTAGAGACAA 6780
 TATCCGATTT GGTGTGCCAG ATGCTAGTCA GGAAATGGTT GAGGTAGCAG CAAAAGCAAC 6840
 CCACATTAC GACTATATCG AAAGTTTGCC TGATAAGTAC GATACTCTTA TTGATGATGA 6900
 CCAGAGCATC TTTTCAACAG GGCAGAAGCA ATTGATTTC ATCGCTCGAA CCTTGATGAC 6960
 AGATCCAGAA GTTCTCATTC TCGATGAAG AACTTCAAC GTAGATACGG TGACAGAAAG 7020
 CAAGATTCAG CATGCCATGG AGGTGTTTGT AGCAGGTAGA ACTAGTTTCG TCATTGCCCA 7080
 CCCTTGAAA ACCATTCTCA ATGCAGATCA GATTATTTTC TTTAAAGATG GAGAAGTCAT 7140
 TGACACGTGT AACCCACATG AACTTTTGAA GCTAGGTGGC TTTTATTAG AACTCTATCA 7200
 CAATCAATT GTTTCGMAAT AAGAAGAAG TTGTCTATG TGCGCAGCTT TTTCTGTGCC 7260
 ATAAAAAATG TTTATCACAG CCTTAAAAA AACATATTAG ACGAAAGTCA TTTTGAGTGA 7320
 TATGATAGGA CTATCGTTAG CATTCGAAAG GAGAGGCATC ATGGCTAGAA CCGTTGTAGG 7380
 AGTTGCTGCA AATCTATGTC CCGTAGACGC AGAAGCCAAA ATCATTCATT CATCTGTATC 7440

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TTGTAGATTC GCAGAGATCA TTCGTCAAAG CGGTGGTCTC CCTTTAGTCA TTCCTGTGG	7500
TGATGAGTCA GTTGTACGTG ATTATGTGGA AATGATTGAC AAACCTATTT TGACAGGAGG	7560
CCAAAAATGTT CATCTCACTT TTTATGGAGA GAAAAAGACC GTCGAGAGCG ATGATTACAA	7620
TCTGTGTCCT GACGAATTTG AATTGGCACT CTGGAAGGAA GCGCTTCGTC AGAATTAACC	7680
AATTATGGCA ATCTGTGCGG GTGTCCAAC TGTCAATGTT GCCTTTGGTG GAACCCCTCAA	7740
TCAAGAAATC GAAGGTCAAG	7760

(2) INFORMATION FOR SEQ ID NO: 64:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 2723 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 64:

GAGGTTTTAA TTCACTTACC TCTsCCGTAT CTTTATTTAA AATGAATCT TTTACGGTTG	60
TATTTCTTGC AAAATCTTTT ACAACAATCT TAATGTTTAG TGTCTTGTCT ATTATTGGTT	120
TAATATCATT AATGATGTA TATTCCTTTC CATTTATATA AATATGTGT TCTTGAATCT	180
CACCATCGAA TCCATTATTT CTTTATTCAT TGATGTTAAA GACTACAGAT TTTCCATCAG	240
CATATTCGAT ACTAGTATTT CCCTTAGGAT CAATGTTTAC TTCGGGTTTA ACATTATCAT	300
ATAAAAACCT ATAGTGGACT CCAACTGCTT TAGCATTCAA ATCGCTATAG CAGTTTGAA	360
GATAAACATT TCCATCCATA TCTGTACCTT TATCTGGAAA TCCGTTTGCT TTAATAGCTT	420
TCATTCCCCA GTCCATGATG TCACCGTCTT TAACATTTCAG CTTAATATTA AAATCTCTAG	480
TGTTATCAAT GTGTAATCT CCGTAGATTA AATAATTTAT TACAACGAT TCATTAATCT	540
TCAAATCCCA GTTAAAACCA CCGTTATCAG AAATCTTACC TCTTAATATA AATTCCTGGAT	600
TTCTGACATA AATTTTATTA GATTTAGATG GATTAAAGTA GTTCTTATCC ATTGAAGGT	660
TTACTGTGTT GGTATCAATA AATAACATGG AGCCATCTTC TTTTATAGCT TCTACATTGA	720
ACTTATCCTC TCCAGTGTAT TCTTTATCAT CCTTACCATA TAATACAGT TTAGAAGAA	780
CTGTACAAAG ATTTCCGCTT TTATCGATAG CTTCCTCTTT ATCGTTCAAT TTAATGTAA	840
ACACTTGATA CCTTATAATG TTAAGCCGT CCAAGCCGA CATTAATACA GNTTGGGTAC	900
TTCTTCCATC TTCAACATTT CTACTATCAG CATAAATGTT TGTCTCTGAA AGGGCTCTTA	960
GATTAGGATT GCCCTTTTGT AATTGTGCTA TATCTTCTCT GCTATAGACT CATTTCTCTT	1020

538

CTAACATATC CGTTTTTCCA GGATTATAGG TAGTCACTTT TAGTGCATAG CCTTTCTCTA	1080
GAATGATATT ATCCTTTAAC AGATATTGTT GTTTTCTGA ATCAGAATAG ATTTTACCAG	1140
ATTCACATTT AGTTAAATTG TCTGGTTGT TTTTGAAG ATCTCCTTCC CTAATCTTA	1200
TGACATTCOC ATACTTGAT ACATAGGAT ATTCTGATTT AGTTTCTCTA ATTTTTCAG	1260
GCATTCFAAT TTTAATTCA GCTTTTTCG GATCATATC TTTCAAAAT AATCTCATAT	1320
CTCTGCAAA AGCTAAATCCA TCCACAATAT CATTAATATT AGCGTATAGA TCAATGTCA	1380
TCGTTTTTGA GTGGAATCA TACTTGGTCG CTTTGATTC TATAGATTTA TAGTTATTOC	1440
CATAATATAC CTGGGCATTT TTAGAAACAT TACTTATCTT TCCAAGAAAT TCAAGTGTG	1500
CATCTTAGA CGGACTTAGA ACACCATAAA TTTTGTGATT GATTTCGTCA AGTTTCTCAG	1560
TTTCATATCT TAGATCAGTC CCATCATCGT AGCGTATTAT ATTCTCTTTA TCATCGTATT	1620
TATAATCGTA TCTCTCCATT CTCTTACCAG TTTCACCTGT AAAACATCA ACTTCTCTAA	1680
ATTTCTTTTT AATGAGTTTC TTTAAGTCTT TATTTTCAA GTCTCTAAT GTTGAAATAT	1740
TTCTATCAAT AGTAAACTA GATTTTCTTT TAATAGACTC TTCAATTTCT TGATGATGAT	1800
GTCTACCCCG AGTTGTATCT TTTTGTAGAC TACCCTCTTT TCCATTTCTT AAATTTTAA	1860
ATTTAGATTC TGCAATCTCG CCAAGCTTTT GATATTTAGA TGAATCTTGA TCAGGATCTA	1920
CTAGATAATA GGAATCATC CCCTTTTCAT CAGCCTGAT AGCAAAATTA ATCTATGAA	1980
TCCTTGTAAG ATTGCTAGAA CCATCTAATG CAATGACTTC AATGATTTTT CCCCTTAAAT	2040
CTCCCGCACC TTTAATTTCA TAAATGGTAT TTCCGCTTTT ATCAAGTTTT CTATTCTTC	2100
CTTGACCTTC ACCTCGGTAA GTTACTTCAA GATTTTCTT AACCTCTCCA TCTTCATTA	2160
CAAGAGCGGC GCCAGCATAC CAAACTTCTT TCGCAATCTC GTCAAAATTT TCAGGATGTT	2220
CTTTTGTATC TCTCGAAAT AGCGTTTCAT TCTTATACTG ATCTTTTACC TTATGATAAG	2280
TATCTTTGTT AATCAACTTA ATTTTTTCAG GATTTGAAA ATCAACCGAA ACAATCTTAG	2340
GGCGGTGTT ATCAATTTTT ACAGGAATAT AGGAAACCTG CCATGGGTAA TCTTTAGTTA	2400
ATCTATATTT AAATTTATAG AAATATTGAC CTTCGCAAT CGGTTCAAT TGACCTCTTA	2460
TCTTAGTAGC AGGATCTTGA TTATCTTTAC TTCTCGGTGC ATTTTCTCTT CTACCTCTAG	2520
GATTTATAGT GAGTCCATCC CACTTCAAGT CACCCCAAAC TTTTAGTTTA GATGATTTGA	2580
TTCCCTTTGC ATCAITGCTT TTAGAAATTA AAATTCCTCT AATAAGTGT TCTCTCGAAA	2640
TGACTTTTAA GTCTCTTTGA TTTTCTCCCT CTTTATTGTT ATTTACTATT GAAATCAATC	2700
CTTCTCTGTC ACTTCTTAAT ACA	2723

(2) INFORMATION FOR SEQ ID NO: 65:

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- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11831 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 65:

AAAAAGTGG GAATGACTCA AATCTTCACT GAAGCTGGCG AATTGATCCC TGTAACAGTT	60
ATTGAAGCAA CTCCAACGT TGTCTTCAA GTTAAACTG TTGAACAGA CGGTACAAC	120
GCTATCCAA GCTGTTTCGA TGACAAACGC GAAGTATTGA GCAACAAACC TGCTAAAGGA	180
CATGTAGCGA AAGCTAACAC GGCTCCTAAG CGCTTCATTC GTGAATTCAA AAACGTTGAA	240
GGCTTGAAG TTGCTGCTGA AATTACAGTT GAAACATTCG CAGCTGGAGA CGTTGTTGAC	300
GTAACGGTA CTCTTAAAG TAAAGGTTTC CAAGGTGTTA TCAAAACGCC CGGACAATCA	360
CGTGACCAG TGGCTACCG TTCTCGTTAC CACCGTGTG CAGGTTCAT GGGGCTGTT	420
GCACCTAACC GGTATTCAA AGGTAAAAAC CTTGCAAGAC GTATGGGTGG CGACGGCGTA	480
ACAATTCAA ACCTTGAAGT TGTACAAGTT GTTCAGAAA AGAAGCTTAT CTTTATCAA	540
GGTAACGTAC CAGGTGCTAA GAAATCTCTT ATCACTATCA AATCAGCAGT TAAAGCTGGT	600
AAATAATAAA GAAAGGGGAA ATCAGTCACA ATGGCAACG TAACATTAT TGACCAAAC	660
GGTAAGAAG CTGGCCAAAT TGTCTTACG GATGCAGTAT TTGGTATCGA ACCAATGAA	720
TCAGTTGTGT TTGATGTAAT CATCAGCCAA CGCGCAAGC TTCGTCAAG AACACACGT	780
GTTAAAAACC GCTCTGCAGT ATCAGGTGOT GGACGCAAC CATGGCGTCA AAAAGGAACT	840
GGACGTGCTC GTCAAAGTTC TATCCGCTCA CCACAATGGC GTGTGGTGGT TGTTGTCTTC	900
GGACCACTC CAGCTTCATA CGGTACAAA CTTCCAAAA AAGTTCGTCG CTTAGCTCTT	960
AAATCAGTTT ACTCTGAAAA AGTGTCTGAA AACAAATTCG TAGCTGTAGA CGCTCTTTCA	1020
TTTACAGCTC CAAAACTGC TGAATTGCA AAGTTCCTG CAGCAATTGAG CATCGATTCT	1080
AAAGTTCCTG TTATCCTTGA AGAAGGAAAT GAAATGCGAG CTCCTTCAGC TCGTAACCTT	1140
CCAAACGTGA AAGTGCACAC TGCTACAACT GCAAGTGTTC TTGACATCGC AATAGCGAC	1200
AAACTTCTTG TCACACAAGC AGCTATCTCT AAAATCGAG AGGTTCCTGC ATAATGAAAT	1260
TGTATGATGT TATCAAAAAA CCTGTCTATC CTGAAAGCTC AATGCTCAA CTTGAAGCAG	1320
GAAAAATATG ATTTGAAGTT GACACTCGTG CACACAAACT TTTGATCAAG CAAGCTGTG	1380
AAGCTGCTTT CGAAGGTGTT AAAGTTGCCA ATGTTAACAC AATCAACGTA AAACCAAAG	1440

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CTAAACGTGT TGGACGTAC ACTGGTTTAA CTAACAAAC TAAAAAGCT ATCATCACAC	1500
TTACAGCTGA TTCTAAAGCA ATCGAGTTGT TTGCTGCTGA AGCTGAATAA TCTAAGGAGG	1560
AAATATCGTG GGAATTCGTG TTTATAAAC AACAAACAA GGTGCCCGTA ATATGACTTC	1620
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GAGCAAGGCT GTGCTAACA ACAACGGTCG TATCACAGTT CGTCACCAAG OTGGTGGACA	1740
CAACGTTTC TACCGTTGG TTGACTTCAA ACGTAATAAA GACAAAGTTG AAGCAGTTGT	1800
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CGGTGTGAAA GCATACATCA TCGCTCCAAA AGGTCTTGAA GTAGGTCAAC GTATCGTTTC	1920
AGGTCAGAAA GCAGATATCA AAGTCGGAAA CGCTCTTCCA CTTGCTAACA TCCCAGTTGG	1980
TACTTTGATT CACAACATCG AGTTGAAACC AGGTCGTGGT GGTGAATTGG TACGTGCTGC	2040
TGGTGCACTC GCTCAAGTAT TGGGTTCTGA AGGTAATAT GTTCTGTTC GTCTTCAATC	2100
AGGTGAAGTT CGTATGATTC TTGGAACCTG CCGTGCTACA GTTGGTGTG TCGGAALAGA	2160
ACACATCGGA CTGTAAACC TTGTAAAGC AGGACGTAGC CGTTGGAAAG GTATCCGCC	2220
AACAGTTGCT GGTTCGTGAA TGAACCTTAA CGATCACCCA CACGGTGGTG GTGAAGGTAA	2280
AGCACCAGTT GGTGCTAAG CACCATCTAC TCCATGGGGC AAACCTGCTC TTGTTCTTAA	2340
AACTCGTTAC AAGAAAGCCA AATCTGACAA ACTTATCGTT CGTCGTGCA ACGAAGAAATA	2400
ATATTAAACT AGTCGCTTAA GCAACTAGTA AATCCGCCAG CTCGGTAGCG CTCATAGGA	2460
GTGCAAGCCG CTGTGGTACA ACATTAAAG GAGAAAAATAT AAAAATGGGA CGCAGCTTAA	2520
AAAAAGGACC TTTGCTCGAT GAGCATTTGA TGAAAAAAGT TGAAGTCAA GCTAACGACG	2580
AAAAGAAAAA AGTTATTAAA ACTTGGTCAC GTCGTTCAAC GATCTTCCCA AGTTTCAATTG	2640
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TGGTAGGCCA CAAACTTGGT GAATTTGCAC CAACTCGTAC TTACAAAGST CACGCTGCAG	2760
ACGACAAGAA AACACGTAGA AATAAGGAG AACATAAATG GCAGAAATTA CTTACGCTAA	2820
AGCAATGGCT CGTACAGTAC GTGTTTCACC TCGTAATCA CGTCTGTTC TTGATAACAT	2880
CCGTGTTAAA AGGCTAGCCG ATGCAATCGC AATCTTGACA TTCCTCCA ACAAAAGCTC	2940
TGAAATCATC TTGAAAGTTT TGAACCTCAGC TGTAGCTAAC GCTGAAAAA ACTTTGGTTG	3000
GGATAAGCT AACTTGGTAG TATCTGAAAC ATTGCGAAAC GAAGGACCAA CTATGAAACG	3060
TTTTCGTCCA CGTGGGAAA GTTCAGCTTC ACCAATCAAC AAACGTACAG CTCACATCAC	3120
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TATGCGTGTG GGCAATCATC GTGATTGGGA TGCCAAATGG TATGCTGAAA AAGAAATACG	3240

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AGCAGTTTCA ACTATTGAAA TCGAACGCGC AGTAAACAAA GTTAACTGTT CACTTCACAC 3360
TGTCTAAACCA GGTATGGTTA TCGGTAAAGC TGGTGCTAAC GTTGATGCaC TCCGTGCAAA 3420
ACTTTAACAAA TTGACTGGAA AACAACTACA CATCAACATC ATCGAAATCA AACACCTGA 3480
TTTGAGATGCT CACCTGTAG GTGAAGGAAT TGTCTGTCAA TTGGAGCAAC GTGTTGCTTT 3540
CCGTCTGCA CAAAACAAG CAATCCAACG TGCAATGCGT GCTGGAGCTA AAGGAATCAA 3600
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TACTACATAC GGTAACTTG GTGTTAAAGT ATGGATCTAC COTGGTGAAG TTCTTCCAGC 3780
TCGTAAAAAC ACTAAAGGAG GTAAATAACC AATGTTAGTA CCTAAACGTG TTAACACCG 3840
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TCGTATCGCC ATGACTCGTT ACATGAAACG TGGTGGTAAA GTTTGGATTA AATCTTCCC 4020
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TGAAGGTTGG GTAGCACGAG TTAACCTGCG TAAAGTGATG TTGGAATCG CTGGTGTATC 4140
TGAAGAGATT GCACTGGAAG CGCTTCGACT TGCTAGCCAC AAATTGCCAG TTAAATGTAA 4200
ATTCTGAAAA CGTGAAGCAG AATAAGGAGA AGGCATGAAA CTTAATGAAG TAAAGAATT 4260
TGTTAAGAA CTTCGTGCTC TTCTCAAGA AGAACTCGCG AAGCGCGAAA ACGAATTGAA 4320
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CTTGAAAGAA GTTAAAAAAC AAATCGCTCG CATCAAAACA GTTCAATCTG AAGCGAAATA 4440
ATGACTAGG GAAGGAGAAA TTTCAATGGA ACGCAATAAT CGTAAAGTTC TTGTTGACG 4500
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TGTTCGCAAA GAAGGGAATA TCCTACGTAT CATGGAACG CCGCGCGTT CAGCTACAAA 4680
ACGTTTCCTT CTGTGAGAAG TTGTTGAAGA AGCGTCATC ATCTAATCAA ACCTGAAGG 4740
AGAJAACCTGA AATGATTCAA ACAGAACTC GTTTGAAGT CCGAGACAA AGCGGTGCTC 4800
GCGAAATCTT GACTATCAAA GTTCTGTGTT GTTCAGGACG TAAATTTGCA AACATCGGTG 4860
ATGTTATCGT GGCATCTGTA AAACAAGCTA CTCCTGGTGG TCGCGTTAAA AAAGGTGAG 4920
TTGTTAAAGC AGTTATCGTT CGTACTAAAT CAGGTGCTCG TCGTCTGAT GGTTCATACA 4980

TCAAATTGTA CGAAACGCA GCAGTTATCA TCCGTGAAGA CAAACTCCT CGCGGAACAC	5040
GTATCTTTGG CCCAGTTGCA CGTGAATTGC GTGAAGGTGG CTTCATCAAG ATCGTGTAC	5100
TTGCTCCAGA AGTACTTTAA TTTTTAGGAA CAACTAGTC CCCTAGTTTC AAGCTAGGGT	5160
GCCCTTATGG GCGTAAGAAA AATCAAGGAG AAACCTAATG TTGTGTAATA AAGCGACAA	5220
AGTTCCGCTA ATCGTGGTA AAGATAAGG AACAGAAGCT GTTGTCTTAA CTGCCCCCTCC	5280
AAAGTAAAC AAGTTATCG TTGAAGGTGT TACATTTGTT AAGAAACACC AACGTCCAAC	5340
TAACGAGCTT CCTCAAGGTG GTATCATCGA GAAAGAAGCA GCTATCCACG TATCAAAAGT	5400
TCAGTTTGG GACAAAAATG GTGTAGCTGG TCGTGTGGA TACAAATTTG TAGACGGTAA	5460
AAAGTTCCG TACAACAAA AATCAGGCGA AGTGTCTGAT TAATCACGAA GGAAGGAGA	5520
AGTATAATGG CAATCGTTT AAAAGAAAA TATCTTAATG AAGTAGTTCC TGCTTTGACA	5580
GAACAAATCA ACTACTCATC AGTGATGGCT GTGCCATAAG TAGATAAGAT TGTTTTGAAC	5640
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GCATTTATCT CAGGTCAAAA ACCACTTATC ACTAAAGCTA AAAAATCAAT CGCCGGCTTC	5760
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CCAACAAAAT CATTTGATGG ACGCGGGAAC TACACACTTG GTGTGAAGA ACAATTAATC	5940
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ACAACTGCTA ACACGTACGA AGAATCACGT GCAATGCTTA CAGGCCTTGG AATGCCCTTT	6060
GCAAAATAAT ATAGGAGTA AATCTAATGG CTAAAAATC AATGCTAGCT AGAGAGGCTA	6120
AACGCCAAAA AATTGTTGAC CGTTATGCTG AAAAAAGTG TGCAATTAAG CGCGCAGGGG	6180
ACTACGAAGG TTTATCTAAA TTACCTCGCA ACGCCTCACC GACTCGTTTA CATAATCGTT	6240
GTAGGGTAC GGGGCGCCA CATTCAGTTT ACGCAAAAT TGGTCTGAGT CGTATCGCTT	6300
TTCCGGAAC TCGCATAAA GGTCAAATTC CTGGTGTAC AAAAGCATCT TGGTAATTTA	6360
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AGTGCAACTT GCAACTACT AGTAAGAGGA GAAAAACAA ATGGTTATGA CTGACCCAAT	6660
CGCAGACTTC CTAACCTGTA TTGCTAATGC TAACCAAGCT AAACACGAAG TACTTGAAGT	6720
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 AAGTGGAGA AGCTTGTTTA CAAACAAGCC AACTTATCTA TTTTGACAG TTCTTAGAGC 7140
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 ACTCTTCACC GTCCAAACGA TTCAAAAGAA ATGAAAACTA TCCACGGAAC TACTCGTGCC 7440
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 CATCCAGAG AAGTTGAAG TCCAGAAAGA ATTACTTTTG AACTTCGAAA CCCAACAA 7620
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 CTTGCTTAC CAGAACCATA TAAAGGTAAA GGTATCCGTT ACCTTGTGTA ATTGCTTGC 7740
 CGTAAAGAA GTAAACAGG TAAATAATGT TGAGTGGTTG ATCATCAACC ACCAACCTAT 7800
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 AACCAGATAA AAACAAACT CGCCAAAAAC GCCACGTCG CGTTGCGGA AAACCTCTCG 7920
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 CAAAGGAAC TAAACTGAA CAAGCGGTTG CTGTCGTAA ACTCGTTGCA GAACGTGCA 8100
 ACCTAAAGG TATTTGAGAA GTGGGTTTCG ACCGCGTGG ATATCTATAT CACGACGTG 8160
 TGAAGCTTT GCGTGTGCA GCTCGTGAAA ACGGATTGAA ATTCTAATAG GAGGACACTA 8220
 GAAATGGCA TTTAAGACA ATGCAGTTGA ATTAGAGAA CGCGTAGTTG CTGTCAACCG 8280
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 CCGTAAAGCA GTAGATGATG CTAAGAAAAA CTTGATCGAA GTTCCTATGG TTGAAACAAC 8460
 AATCCACAC GAAGTTCTTT CAGAAATCGG TGGAGCTAAA GTATTGTGA AACCTGCTGT 8520

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AGAAGGTTCT GGAGTTGCCG CTGGTGGTGC AGTTCGTGCC GTTGTGGAAT TGGCAGGTGT 9580
 GGCAGATATT ACATCTAAAT CACTTGGTTC TAACTACTCA ATCAACATTG TTCTGCAAC 9640
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 TATCTCACTT AGTAACAGTT GAAGAAGTAA ACTAATGAGG TTTTAGGGGA TGTGCACTGT 9940
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 TGAAACTTCA TGAATTGAAA CCTGCAGAGG GTTCTCGTAA AGTACGTAACT CGCGTTGGTC 9120
 GTGGTACTTC ATCAGGTAAC GGTAAAACAT CTGGTGGTGG TCAAAAAGGT CAAAAGCTC 9180
 GTAGCGGTGG CGAGTTTCG CTCTGGTTTG AAGGTGGACA AACTCCATTG TTCCGTCTGC 9240
 TTCCAAAACG TGGATTCACT AACATCAACG CTAAGAATA CGCAATTGTG AACCTTGACC 9300
 AATTGAACGT CTTTGAAGAT GGTGCTGAAG TAACTCCAGT TGTCTTATC GAAGCAGGAA 9360
 TTGTTAAAGC TGAAAGTCA GGTATTAAAA TTCTTGGTAA CGGTGAGTTG ACTAAGAAAT 9420
 TGACTGTGAA AGCAGCTAAA TTCTCTAAAT CAGCTGAAGA AGCTATCACT GCTAAGGTG 9480
 GTTCAGTAGA AGTCATCTAA GAGAGGTGAC CTATGTTTTT TAAATTATTA AGAGAAGCTC 9540
 TTAAGGTCAA GCAGGTTGGA TCAAAAATTT TATTACAAT TTTTATCGTT TTGGTCTTTT 9600
 GTATCGGAAC TAGCATTACA GTTCTGGTGG TGAATGCCAA TAGCTTGAAT GCTTTAAGTG 9660
 GATTATCCTT CTTAAACATG TTGAGCTTGG TGTGGGGGAA TGCCCTAAAA AACTTTTCGA 9720
 TTTTGGCCCT AGGAGTTAGT CCCTATATCA CGCTTCTAT TGTGTGCTAA CTCCTGCAAA 9780
 TGGATATTTT ACCCAAGTTT GTAGAGTGGG GTAAACAAGG GGAAGTAGGT GGAAGAAAT 9840
 TGAATCAAGC TACTCGTTAT ATTGCTCTAG TTCTCGCTTT TGTGCAATCT ATCGGGAATTA 9900
 CAGCTGGTGT TAATACCTTG GCTGGAGCTC AATTGATTAA AACTGCTTTA ACTCCACAAG 9960
 TTTTCTGAC GATTGGTATC ATCTTAAACG CTGGTAGTAT GATTGCTACT TGGTGGGGT 10020
 AGCAAAATAC AGATAAGGA TACGGAACG GTGTTCCAT GATTATCTTT GCCGGGATTG 10080
 TTTCCTCAAT TCCAGAGATG ATTCAGGGCA TCTATGTGGA CTACTTTTGG AAGGTCCCAA 10140
 GTAGCGGTAT CACTTCATCT ATCATTTTCG TAATCATTTT GATTATTACT GTATTGTTGA 10200
 TTATTTACTT TACAATCTAT GTTCAACAAG CAGAATACAA AATTCCAATC CAAATNACTA 10260
 AGGTTGCACA AGGTGCTCCA TCTAGCTCTT ACCTTCCGTT AAAAGTAAAC CCTGCTGGAG 10320

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"TATCCCTGT TATCTTIGCC AGTTCGA"TA CTGCAGCCTG CGCCTATCT TCAGTTTTTG	10380
AGTGCCACAG GTCATGATTG GGCTTGGGTA AGGGTAGCAC AAGAGATGTT GGCAACTACT	10440
TCTCCAACGT GTATTGCCAT GTATGCTTTG TTGATTATTC TCTTTACATT CTCTATACG	10500
TTTGTCACAGA TTAATCCTGA AAAACGAGCA GAGAKCTAC AAAAGAGTGG TGCCTATATC	10560
CATGGAGTTC GTCCCTGGTAA AGGTACAGAA GAATATATGT CTAACCTTCT TCGTCGTCTT	10620
GCAACTGTGG GTCCCTCTTT CCTTGGTGTG ATTTCCATTT TACCGATTGC AGCTAAAGAT	10680
GTATTTGGTC TTCTGTGATG TGTGQCCTTT GGTGGAACAA GTCTCTTGAT CATTTATCTCT	10740
ACAGGTATCG AAGGAATCAA GCAATTGGAA GGTACCTAT TGAACGTAA GTATGTTGGT	10800
TTCATGGACA GAACAGAATA AAAGTATTTA CTGAATCAGT AAATACTGAG GGAGTGGAGG	10860
TTTAAACTCT GACATTGTGA AGAGTTGGAT CTCCTCTCTT CTAATTTGTT TTTAAATCGG	10920
GGTGAAAGA CTTTTGCTT CTATTTAAAA ATAAAAAAG GAGATCAAT CATGAATCTT	10980
TTGATTATGG GCTTACCTGG TGCAGGTAA GGAACCTAAG CAGCAAAAT CGTAGAACAA	11040
TTCCATGTGG CACATATCTC AACAGGTGAT ATGTTCCGCG CTGCAATGGC AAATCAAACT	11100
GAAATGGGTG TTCTTGCTAA GTCATATATT GACAAGGGTG AATTGGTTCC TGACGAAGTT	11160
ACAAATGGAA TCGTAAAGA ACGCCTTCA CAAGATGATA TTAAGAAAC AGGATCTCTA	11220
TTGGATGTTT ACCCACGTAC AATTGAACAA GCTCATGCCT TGGACAAAC ATTTGGCTGA	11280
CTTGCCATTG AACTAGAAG TGTATCAAT ATTGAAGTGA ACCCTGACAG CCTTTTGGAA	11340
CGTTTGAGTG GGCCTATCAT CCACCOCCTA ACTGGAGAA CTTTCCACAA GGTCTTTAAC	11400
CCACCAGTGG ACTATAAGA AGAAGATTAC TACCAACGTG AAGATGTAA GCCTGAGACA	11460
GTAACACGTC GTTTGGATGT TAATATTGCT CAAGGAGAAC CAATCATTCG TCACTACCGT	11520
GCCAAAGGTT TGGTTCATGA CATCGAAGGT ANTCAAGATA TCAATGATGT CTTCCTCAGT	11580
ACTGAAAAAG TATTGACAAA TTTGAAATA AGCGTTTTTC ACACCTGCAA AAATCCGCTA	11640
CAATGTGATT ACTGAGTAG TCTGACTTAT AATTGTTGTC TCTGTGCTA GAGGCATCGA	11700
ATCGAAATTT ATGGAGGTGC TTTTGCCTGG CAAAAGACGA TGTGATTGAA GTTGAAGCCA	11760
AAGTAGTTGA TACAATGCCG AATGCAATGT TTACGGTTGA ACTTGAAAAA GGACATCAGA	11820
TTTAGCAGG G	11831

(2) INFORMATION FOR SEQ ID NO: 66:

(1) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10726 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 66:

CCCGGCATT	GAAAGCTATT	CGTGAAGGAT	TTATGATGGC	AATGCCTTTG	ATTTAGTCG	60
GCTCTTAAAT	TCTTATCTTA	ATCAGTTGGC	CTCAAGAGGC	TTTTACAAAT	TGGCTGAATA	120
GTGTGGGATT	GCTAAGTATC	TTGACAACCTA	TGAATCAGTC	AACAGTAGCG	ATTATCTCCT	180
TGGTCGCTTG	TTTCGGTATT	GCCTACAGGT	TGTCGGAAGG	ATATGGTACA	GATGTCCT	240
CGGCAGGGAT	CATAGCCTTA	TCCAGTTTGG	TATTTGATGGC	ACCTCGTTT	TCGAGTATGG	300
TTTATGATAA	AAATGGGGAG	CAGTCAAGC	AGTTATTTTG	CGGCGCAATA	CCATTTCTTA	360
GCCTGAATGC	ATCTCTTTTG	TTATGCGCA	TTACTATTGG	ATTGGTTACA	GCAGAGATT	420
ATCGTATGTT	TATCCAGCG	GGAAATACGA	TAAAAATGCC	AAGTGTGTG	CCAGATGTAG	480
TAAGTAAATC	ATTTTCAGCT	CTTTTATCTG	GTTTACTAC	TTTTGTTTG	TGGCCTTTGG	540
TCTTAAAGG	TCTTGAAGCG	GCAGGAGTTG	CAGGAGGTCT	CAACGGACTC	CTAGGTGCAA	600
TTGTTGGAAC	ACCGCTTAAG	TTAATTGCAG	GAACGCTTCC	AGGTATGATT	CTATGTGTTA	660
TTGTAACTC	ATTCCTTTGG	TTCTGTGGAG	TTAATGGGG	ACAAGTTTTA	AATGCTTTTG	720
TAGACCCAGT	TTGGTTACAA	TTTACTACAG	AAACACAGA	AGCTGTGGCT	GCAGGACAAA	780
CACCTCAACA	CATTATTACA	TTACCGTTTA	AAGATTATT	TGTATTATT	GGTGGCGGTG	840
GAGCGACTAT	TGGTCTTGGC	ATTTGTCTCT	TCCTATTTAG	TAAGAGTCGT	GCGAATAAAA	900
CATTAGGTAA	GCTAGCTATT	ATACCGTCTA	TTTTTAATA	CAATACAGCT	ATCTATTTTA	960
CGTTTCCAAC	AGTTTTAAAT	CCGATTATGC	TGATTCGGT	TATTGCTACT	CCTACAATCA	1020
ATGCCCTTGAT	TACCTATGTA	TCAATGGCTG	TAGGATTAGT	ACCCTATACA	ACAGGTGTAA	1080
TCCTTCCGTG	GACAATGCCA	CCGATTATAG	GAGGCTTCTC	TGCAACAGGG	GCTAGTTGGC	1140
GAGGAGCTCT	ATTACAAGTT	GTTTTGATT	TGGTTCTCTG	AGCAATTTAT	TATCCATTCT	1200
TCAAAATGTC	AGATAAACGC	AATCTTGAAA	AAGAAAAAGC	TACTGTTGGA	GGGAATAAG	1260
ATGGTTATCA	GAGTATTTGA	TCAACAGAAA	AATATCTATT	CTAGCTTTGC	CTTAGAGGAA	1320
TTAAGTTACT	ATATGAATCG	GGTCTTTAAG	ACTAACATAG	AGCTTGTGCA	GGAGAAGGAA	1380
GCGGATATTT	TTGTAGGATT	AGTCAATAAA	GAGGACAGAA	AAGACCATGT	TCTTATCTCA	1440
TTAGACAAGG	GTAAGGGGAG	AATTGAGTCT	AATACAATTG	TAGGTTTACT	TATTGGAATT	1500
TACCGAATGT	TTCATGAATT	TGGGGTTGIG	TATACTAGAC	CAGGGCGCAG	ACATGACTTT	1560
GTTCCAGAGT	TACGATTTGA	AGATTTTTTA	GATAAACAGC	TATCTATAGA	TGAAACAGCC	1620

AGTTACTATC ATAGGGGAGT ATGTATAGAG GGAGCGGATT CATTTGAAAA TATACTAGAT	1680
TTCATTGATT GGCTACCTAA GATTGGGATG AACAGTTTTT TCATCCAGTT TGAATAATCCT	1740
TACTCTTTTT TGAAACGTTG GTATGAACAT GAATTTAATC CATATCTAAA TAAAGAACAA	1800
TTTTCAAAAT AATTAGTACA AGAATTGAGT GATAGGTTGG ATAAAGAATT GCAAAAAGAA	1860
GGTCTTATTC ATCATGCTGT TGGTCATGGA TGGACAGGTG AAGTTTAGG TTACTCTTCA	1920
AAATTTGGCT GGGAAATCAGG TCTTAGTATF TCAGAAGAGA AGAAACCCTA TGTCGCTGAA	1980
ATAAACGGGA AACGAGAATT GTTTAATACG GCTCCGATTT TAACCAAGCTT GGATTTTTC	2040
AATCCAGATG TAGCTGATAA GATGCTAGAA ATTATCAAGG ATTATGCCAA GAAAAGACCT	2100
GATGTTAACT ACTTACATGT ATGGTTGTCG GATGCTCGTA ATAAATTTTG TGAATGCGAA	2160
AACGTAGACG AAGAATGGT TTCGGATCAG TATATTGCTA TTCTCAATCA ATTGATAGG	2220
GCTTTAACGA GTGAGGATT AGATACAAAG ATTTGTTTTT TGCTTTATCA TGAGTTCTTA	2280
TGGGCACCTC AGAAAGAAAA ATTAGATAAT CCTGAACGCT TTACCATGAT GTTTGCCACG	2340
ATTACAGAAA CATTTGAJAT GAGTTATGCA GATGTAGATT TTGACAATTC CATACCTACG	2400
CCTAAACCTT ATATGCGTAA TAAAAATATA CTTCGGAATT CTCTTGAGGA AAATTTATCT	2460
TATCTTTTTG AGTGGCAAAA AGCATTTAAA GGAGATAGTT TCGTATATGA CTATCCITTA	2520
GGCGCTGCTC ATTATGCGGA TTTAGGCTAT ATGAAAATTA GTCAAACTAT TTACAGAGAT	2580
GTATCTTATC TTTCCAACCT ACATTTGAAC GGTACATTT CGTGTCAAGA ATTACGTGCC	2640
GGATTCCCTC ATAAATTTCC TAATATGTC ATGGGGGAAA TGCTCTGAA GAGACAAGA	2700
AGTTATGAAG AATTGATGGA AGAATACTTT TCTGCTTTGT ATGGGGAAAA TTGGCAGTCT	2760
GTGTGTGAAT ATTTAGAAAA ATTATCCATT TATTCCTCTT GTGATTATTT TAATGCAATT	2820
GGCAGCCGTC AAAGTGATGT TTTAGCGAAT CATTTATTATA TAGCTTACAA TCTAGCTGAT	2880
AAATTTTATC CAATTATTGA GAAAAATATT TCTAAGTTAT TAAATAGTCA AAAGGATGAA	2940
TGGAACAGCG TCAGTTATCA TCGTGAATAT GTTGTTAAGA TGGCGAAGGC TTTATATCTT	3000
CAAGCAACTG GAAAAACAAG GCAAGCTCAA GATGAATGGA GAAATGTGTT GAATTATATC	3060
CGTGGGCAGC AATTGCTATT TCAATCTAAT TTGGATGTTT ATCTGTAAAT TGAAGTAGCA	3120
AAAAATTAAG CTGGTTTCCA CTATATAATC ATAAGTATAG AAAATGAAC TAAAGTATTC	3180
GAGAAAGATT ATCTAAATA TTATGAAATT TAAGGATTTT TAAGATATTT AGGGTCAACT	3240
TTCTATTATF ATCTAGCGGA AGTCATTTTA ATAAATGATG GTAAAGATG GATCAAGATT	3300
GAGGAGGAAG AAAGATGAAA TCAAAAGAAG AAATAAATAT GCTTGGTTTT ACAATTGCTG	3360

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CTTACGCAGG AGATGCAAGG TCAGATTGGA TGGATGCTTT GGCCTTTGCG AGAGATGGAT	3420
ATTTTGAAACA GGCAAGAGAA TTGGTTGAGT CTGCAAAACGA CTCAATAGTG TCTGCCCATC	3480
GAGAACACAGC TAATTTATTA GCGAGGAGG CATATGGAGA TAATTTTGAA GTGAGCTTTA	3540
TTATGATTC A TGGTCAAGAT ACTTTGATGA CAACGATGCT ATTGATAGAT CAGGTAAAGT	3600
TTTATTATGTA TGAATATGAA CGAATTCGAA AGATTGAAGA ACATAATGOT TTGCAATGAG	3660
GATTAGTCAT GGAAATTTTA CAGGTTAAAG CCTTACCGAA GGAOTTTTTA TTAGGAALTC	3720
CTACCCGTCG TTTTCAAGTA GAGGGTGCAA CTAGGGTAGA TGGCAAAAGGA ATAAATATGT	3780
GGGATGTTTA TTTCGAAGAA AATAGTCCGT TCTTACCAGA TCCAGCTAGT GATTTTATTT	3840
ATCGTATCGA AGAGGATATA GCTTTGGCGG CAGAACATGG TTTCGAGGCT TTGCGTTTAT	3900
CTATTCTCTG GGTTCGTATA TTTCTGTATA TAGATGGGGA TGCTAATGTA TTAGCTGTTT	3960
ATTATTACCA TAGAGTTTTT CAGTCTTGCT TAAACAATAA TGTGATTCGG TTTGTTTCTT	4020
TACATCATTT TGAATCGCCT CAGAAATGT TAGAAACAGG GGATGGTGT AACAGAGAGA	4080
ATATTGATCG TTTCTACGTA TATGCTCGCT TTCTTTTCCA AGAATTTACA GAAATCAAGC	4140
ATTGGTTTAC AATCAATGAA CTGATGTCTC TTGCTGCAGG TCAATATATA GGAAGTCAGT	4200
TTCTCTCAAA TCATCATTTT CAATTATCTG AAGCAATTCA AGCGAATCAT AATATGTTGT	4260
TGGCGCATGC TCTTGCAGTC CTCGAATTTT ATCAATTAGG GATTGAGGGA AAGGTAGGTT	4320
GTATTATGTC TTTAAAGCCA GGCTATCCTA TTGATGGGCA AAAAGAAAAAT ATTTTGGCAG	4380
CTAAACGGTA TGATCTTTAT AATAATAAAT TTCTATTAGA TGGAACTTTT TTGGGCTACT	4440
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TTATTGAAGA TGCTGATTTA GAAATTATGA AGAGAGCTGC ACCTCTTAAT ACGATGTTTG	4560
GGATGAATTA TTATCCTTCA GAATTTATTC GTGAATACAA AGGTGAAAAT AGACAAGAAT	4620
TTAATTCAAC AGGAATAAAA GGACAGTCTT CTTTAAATTT AAATGCTCTA GGTGAATTTG	4680
TAAAAAAACC TGGTATTCCG ACAACAGATT GGGATTGGAA TATTTATCCT CAAGGGTTAT	4740
TTGATATGTT GCTTCGTATC AAAGAAGAAT ATCCTCAACA TCCGGTCATT TATTTAACTG	4800
AAAAATGGTA AGCCCTTAAA GAAGTTAAGC CAGAGGCGGA GAATGATATT ATTGATGACA	4860
GTAAGAGAAAT CCGTTATATT GAGCAACATT TACACAAAGT TTTAGAGGCT CGAGATAGAG	4920
GAGTCAATAT TCAAGGCTAT TTTATATGTT CTTTGCAAGA TCAATTTTCT TGGGCGAATG	4980
GCTACAATAA CGGATATGGT CTTTCTTTTG TTGATTATGA AACACAGAAG AGATAATTTA	5040
AGAAAAGTGC TCTTTGGGTA AAAGGCTAAA AACCGAATTA AGGTAGCGA TTTGACTGAT	5100
GTTTAAATATG TTTTAAATAT GAGGTTGAAT TTTTATAGG AGGAGTTTTA TCGATAAGCT	5160

AGTCGCTGCC ATTGAAAAGC AACAAAGGAA ATTGAAAAA ATTCTACTA ATAACTATAT 5220
 GATGGCTATT AAAGATGGAT TCATTGCTAC TATGCCTTTA ATTATGTTTT CAAGCTTTTT 5280
 GATGATTTAT ATTATGATTC CTA AAAAATTT CCGAGTAGAG TTACCGAGTC CAGCTATTGT 5340
 CTGGATCAGA AAGGTGTATA TGTTAACCAT GCGAGTTTG GGTATTATG TTTCAAGGAC 5400
 TGTTCGAAAG TCATTAGTTG GAAATGTTAA CAGAAAAATG CCTCAAGGAA AGGTAATAAA 5460
 TGATATTCTT GCAATGTTGG CAGCCATATG TAGTTATCTG GTATTAACTG TAACGCTTGT 5520
 AGTTGATGAG AAGACGGGAT CTCAGAGTTT GTCGACAAAC TATTTAGGAT CTCAGGAT 5580
 GATAACTTCG TTTGTCAGTG CCTTTATTAC TGTAATGTT TACCGATTCT GTATTAAAGC 5640
 AGACATTACT ATTCAATTAC CTAAGGAAAT TCCTGGGGCT ATATCACAG CTTTAGAGA 5700
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 TACTTTAGAT GTTCCTTTTG CCCAGTATT TCAACAAC TA TGTACTCTTA TTTTAAAGG 5820
 GGCAGAAATCA TATCCTGCTA TGATGTTGAT TTGGTTTATG TGTGCTTTGC TTTGGTTTGT 5880
 TGGAAATCAT GGACCATCTA TTGCTTTACC TGCTGTTACA GCTTTGCAAC TGAGCAATAT 5940
 GGAAGAGAAAT GCTCAACTTC TTGCAATGG CCACTTCCCT TATCACTCTT TAACACCTAA 6000
 TTTTCGGGAT TATATCGCTG CTATTGGAGG AACGGGGGCT ACCTTTGTTG TACCATTAT 6060
 TTTGATTTTC TTTATGCGGT CTAACAATTT AAAATCGGTA GGTAAAGCTA CAATTACTCC 6120
 TGTTTTATTT GCGGTAAATG AACCTCTTCT ATTTGGTATG CCGTTTATTT TGAATCCCTA 6180
 TCTTTTGTGC CCTTTTGA TGACTCCACC AGTGAATGTA TTTCTAGGAA AGGTCTTTAT 6240
 TGATTTCCTT GGAATGAATG GATTTTATAT CCAGTTACCT TGGACCTTTC CTGTCCTCT 6300
 GGGATTGTTA ATTGGAACGA ATTTTCAACT TATCTCCTTT GTATTTTAT CTTTGATTTT 6360
 AGTTGTCGAC ATATTGATTT ATTTGCCATT CTGTAGAGCG TATGATAGAC AGTTACTGGT 6420
 GAAAGAAGAT ATTGCAAGCT CAAATGATAT TATTTTAGAG GAGGATACAA GTGAAATAAT 6480
 TCCTGGTGAG ATAGATGAAA TAAAAAGTAA GGAGTTGAAA GTACTGGTTC TTTGTGACGG 6540
 GTCTGGAAAC AGTGGCGAAT TAGCCAAATG AATTAACGAG GGGGCTAACT TAACAGAGGT 6600
 TAGAGTGATT GGAATTCAG GAGCGTACGG AGCTCATTTAT GATATTATGG GTGTTTATGA 6660
 TTTAATTTAT CTGGCCCCAC AAGTTCGGAG TTATTATAGA GAGATGAAGG TGGATGCAGA 6720
 AAGATTAGGT ATTCAAGTAG TTGCTACCAG AGGAATGGAA TATATTATT TAACAAAGAG 6780
 TCCAAGTAAA GCCTTACAAAT TTGTATTGGA GCATTACCA GCTGTGTAGT AAGTTTTTCC 6840
 ATCTTTTATT TGAGTAAAGA TTTTGTTTAC AGATAGGCTT GAATTTAAA ACSTTCCCCC 6900

TTTTTTAATA TAAGATCCC TCTTCACAA TTGTAAAAAG AGGATTTTG TATTTATCT	550	6950
CTTAGACCAA GTTCTCTTCA TAAAGAGAAG GAGGATTGGG TAAATCTCCA AGCCCTCTGC		7020
AATCATTTGCA AAGGATAGGA GAATTTTGA GATGGGACTA AAGATTGAGA AACTAGAAGT		7080
GGTTCCTAGA ATAGGCCUGA TATTATTGAA ACAGCTAAAG ACAGCGCTGG TCACGACCAG		7140
AAAATCATTG CTATCTAGGC TGACAAATAA GATTAAGCGCT AGCAAAATCA TAGCAATAGT		7200
GACAAAGTAC TTGAGAATCT TATGCTGGGT ATCTTTGTCA ATCACCCTTT TATTAACATG		7260
GAGGTCATAA ACACGGTGGG GCGATAGGAT TGACAAAATT TGGTTTTTGG CAATTTTGA		7320
AAGGATGAGG CCTCGAATA TCTTGATGCC ACCTGCAGTT GATCCAGCAG AGCCACCGAT		7380
TGCCATGAGG AAAAGGAGGA TAAACTGGGA GAAGAGGGGC CAGTTGGTAA TATCTCCATA		7440
TCCAAAACCA GTTGTGTAA TGATGTTGGA AACCTGGAAG AAGGTCATTT CAAAGCTCTT		7500
TGAAAACCTT GGTAGAGGT AGAGGGTGTT GAGGCTAATC AAGCTGTAG AAACGAGTAC		7560
AATGACCAAG TAAGCCCTAA GCTCTTATC TCCAAAGAAG GCCTTGATGC GACGGAGCAT		7620
GAGGTAGTAG TAGAGTTGA AATTACTCC AAAAACCGA ACTCCGATAC TGACGAGATA		7680
GGTAATCAGT GAGCTGCCAT AGTGGGCAAT TCCGTGTTA TAGACGGTAA AGCTCCAGT		7740
TCCCGCTGTC CCGTAGCAA TAACAAAATC ATCGTAGAGA GGCATACCG CTAGATAATA		7800
GATGATGACA AAGAGGGAGA AGAGAGCTAG ATAAAGGAGA TAGAGAACTT GGGCAGTGT		7860
TTTGTGTTG GATACAACCT TGCCAAAAC AGGACCTGGA ACCTCGCCT TCATCACCTC		7920
TAGGTGGCTA TTTTGTGCAT TGTCCATAAT AGCAAGTGCA AAAACAAGCA CTCCCATCCC		7980
TCCAATCAAG TGGTAAAAC TTGCCAGAA GAGGAGGGAA CGCTGAGAA CGAACAAGTC		8040
GTTCAAAATA CTGCTCCAG TAGTTGTAAA TCCAGAACTA ATTTCAAAA AGGCATCAAT		8100
AAGGTGGGG ATTTGCCAG AAAAGACAAA GGGGAGACCA CCAAGAGAG ACCAAGGAT		8160
CCAACAGAGG GCAACGATCA AGACTCCCTC CTGGCATAA ATCCGTGAT TTTTGGCTT		8220
CTGTAAATCT CCTGAACCGC CTAACAATAC GAGAACTCCT ATGGTCGAAA AGAGGGCTGT		8280
AAAGACTTGG CTGATTCAC GGTAAATAGC AGCAATCGCA ACAGGAACCA AAGAAGAAC		8340
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CCTCGCATC AAGTCATAAA TCTTGATGAT GTTTGGCAAC AAGGTTGTTA CTAGGAGCTT		8460
GTCTCAACT TCCAACATAT CTTCCCACT TGGGAAATA GTCTTGCCTT TTGGAATAAT		8520
GGCTGAATA AGAACCCCTT TTTTCAATTT CAGTTGAGAA AGAGGTTGG CAGTCATTTT		8580
ATTGGCTTCC TTGATATGGA ATTGCAGGT TCGATTGGC CCATTGGCTA GATGGTGCA		8640
AGCTTGAAGG TCTGAATACT GGGCATTAAC TCGACCAGCA ATAAAGTGCA TAATCGTATC		8700

TACACGGATG CTTTtaggtg TGATGATACT TGAATAATCA GGCGCATTGA TAATCTCGAG 8760
 GAGACTGGTA CGATTGACCT TAGTAATATT TTTCTGTACA CCTACCCGTG CAAGGAACAT 8820
 AGATGTAAATC AGATTTTCTT CATCGACTCC TGTTAGAGTC GCAACGGCAT CATAGTGTG 8880
 AGCATTCTTC TCCAGCAGGA TATCTTTGCG GTTCCATCT CTTTGAACGA TGTAGAGATT 8940
 TGGGAATTTT TCGCTAAAGA AGCTGGCGAT TTCAGGATTG ATTTCAATGA CTTTGTATC 9000
 GATAGACTA TCTTTAGAGAA TACCAAGTAG ATAATAGGCA ATTCTACCTG CCCCAAGAT 9060
 GAGAAGGCTC TTCACGGCGC GTGATTTAA ATAAATTATGG AAGAGTATCA TATCGACACG 9120
 GTTACCAGTG ACAAGATTTC TATCTTTATC CTGTACAGTC ATGTCAACGC TTGGAATGAT 9180
 AATTGTATGA TCCCTCTCTA TCGCACAGAC AATGACATTA CCAAAATTTT TACGAAAATC 9240
 AGAAATGGGC ATTTGGCAAA GACCGCTGGT GGACTTGACG ACAAAATTTT TGAAGCTAAC 9300
 GCGTCCACCA GCAAGCGTT CGACAGACAG GCGCTTGGGG AAGTCAATGA TATTCGCGAT 9360
 AGCGCGGGCA GCCAAGAGCT CAGGATTACG GATAAGAGAA AACCCGAGAA TATTCTTTTC 9420
 CTGTGAATAA GAGTTAGAAT ATTCAAGGTT CGCACCCGA ACGATAGTTT CTTTAGCTCC 9480
 CATTTTCTTG GCTAGAACTG CTGCAATCAT GTTGACTTCA TCGTGTCTCG TCAGGGCGAT 9540
 AAAGATATCA CAATCTTGA GCTGTGCTTG CTCAGAAATG GCAAAATCG CCCGTTTACC 9600
 AAGGATACCA ATGATATCAA AGCGACTGAC AATATGATTG AGAACAGCTT CGTCTTGCTC 9660
 AATCAGCAA ACATCATGCT TTTCTGCAC CAAGGAGCGA CAGAGGGCAA AACCAACTTT 9720
 TCCCCCTCCG ACAAGGATAA TTTTCATAAT AAACCTACT TTTTCATGAT GTAACATCA 9780
 TACCCTTTTT CAGAAAAAA TGCACTACT AGCTAATAAC AAGAGTTTTT AGTGAATAAT 9840
 CGCTATAAGG TAAAACTATA CCTAACCAG TTGAAATAGC TATTAGCGAC TTTCTCTGAA 9900
 ATATGGTATG ATAAAGGATA TACAAGGAGA TAAATGAAT AATAATTAC TGGTATTACA 9960
 ATCAGACTTT GGTCTGGTGG ATGGTGCGGT ATCGGCTATG ATTTGGAGTG CTTTAGAAGA 10020
 GTCTCCAACC TTAATAATAC ATCACTTGAC GCACGATATC ACGCCTTATA ATATTTTGA 10080
 GGGAGCTAT CGTCTCTTTC AGACGGTGGG TTACTGGCCT GAGGGAACGA CGTTGTATC 10140
 GGTGTTCGAT CCAGGTGTCG GTTCGAAACG TAAGAGTGTG GTTGCCAAGA CTGCAAAAA 10200
 TCAATACATT GTCAAGCCAG ATAATGGGAC GCTTTCTTTT ATCAAGAAAC ACGTTGGCAT 10260
 TGTAGCAATT CGTCAATATT CTGAGGTGGC CAAAGAGGCT CAAACACAG AGCATCTTTA 10320
 TACCTTCCAC GGTCTGTATG TCTATGCCCTA TACTGGTGCT AAACCTGGCA GTGGTCACAT 10380
 TACTTTTGAG GAAGTAGGSC CAGAGCTCAG TGTGGACAG ATTTGTAGAGC TTCCAGTCTG 10440

552

AGCGACCATC ATAGAAGATC ATCTGGTGAA GGGAGCCATT GATATCTGG ATGTGCGTTT	10500
CGGTTGCGCTT TGGACCTCTA TCACACGGGA AGAATTTTAC AAGCTGGAAC CAGAATTTGG	10560
TGATCGTTTT GAAGTGACCA TCTATCATGC TGATATGCTG GTCTATCAAA ATCAGGTTGT	10620
CTATGCGCAA TCATTTCAG ATGTGAGAA TGGCAACCS ATCTTTACrC TCAGCAtCTC	10680
CGATTAGCTG GCGAATTGCT TCTAGTTGGA TTCTGTCAT CAAGGT	10726

(2) INFORMATION FOR SEQ ID NO: 67:

- (1) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7163 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 67:

TTATCTTTAA CGATATCAAT CAAGATCTGG TCAATAAGG GATTGGGCT TATCGTGAAG	60
TTGGCATCCA AGCCCATGGA TATGCTGTG ACGTGACAGA CGAGGACGGT ATCCAAGCCA	120
TGCTCAAGCA AATCGAACAA GAGGTTGGTG TCATTGACAT CCTCGTTAAT AACGCTGCTA	180
TTATCGGCG AGTTCCAATG TCGGAAATGA GCGCGCTGA TTTCCGTAA GTCATCGATA	240
TTGACTTAA CGCACCATT ATCGTTTCAA AGGCAGTTAT TCCTTCTATG ATAAAGAAAG	300
GGCATGGAA GATTATCAAT ATTTGTTGGA TGATGAGCGA ACTGGGACGT GAAACAGTTA	360
GCGCTTATGC TGCTGCTAAA GCGGCGTTGA AAATGTTGAC CCGCAACATT GCGTCTGAAT	420
ACGGTGGAGC CAATATCCAA TGTAACGGAA TTGGACCGGG TTATATTGCC ACTCCTCAAA	480
CAGCACTCT TCGTGAATTG CAAGAAGATG GTTCTCGCCA CCCATTTGAC CAGTTCAATCA	540
TTGCAAAAAC ACCTGCTGCA CGTTGGGGAA ATACTGAAGA TTTGATGGG CCTGCTGTCT	600
TTCTCGTAG TGATGCCAGC AATTTGTCA ATGGCCACAT CTTATATGTA GATGGCGGA	660
CTTTAGCCTA CATCGGAAAA CAACCTGAGT AAAAATAGAA AGAGATCTT ATGAAAAATCG	720
CATTATCAA TGAATAATAG CAAGCTAGCA AGAATCACAT TATTTACGAT AGTCTAAAAG	780
AAGCGACAGA TAAAAAGGC TACCAATTAT TTAACATGAG TATCGCTGGA GAAGAAGAG	840
AAAGTCAATT AACTTATGTG CAGAACGGAC TAATGGCTGC CATCCTTTTA AATACAAAGG	900
CAGTTGACTT TGTGTGACC GGCTGTGGTA CCGGTATAGG GGCTATGCTT GCTTAAACA	960
GCTTCCCTGG TGTGCTCTGT GGTCTAGCAG TGGACCCAAC TGACGCTTAC CTTTATTTCT	1020
AAATCAATGG TGGTAACGCC TTGTCTATCC CTTATGCCAA AGGATTTGGC TGGGGGGCAG	1080
AAC TGACCT CAAATTGATG TTGTAACGCT TATTTGCTGA AGAAATGGGC GGTGGCTACC	1140

CAAGAGAACG	TGTAATCCCT	GAACAACGCA	ACGCTCGTAT	CTTAAACGAG	GTGAACAAA	1200
TCACCCACAA	TGATTGATG	ACCATCCTTA	AAATAATCGA	CCAAGACTTC	CTCAAAGACA	1260
CCATCTCTGG	CAAACTACTC	CAAGAATACT	TCTTTGAAAA	CTGCCAAGAT	GATGAAGTTG	1320
CTGCTTATTT	GAAGAAGTA	TTAGCCAAGT	AAAGCTATTG	TAAACAGAA	AGGAATAAT	1380
GGATGACGAA	AATATTACTG	TTTGGCGAAC	CATTAAATCG	AATTTACCA	TTAGATGCCA	1440
CCAGTATCGG	CGATCATGTT	GCCAGTTGCA	CTTATTTTGG	CGGATCAGAA	ATTAACATCG	1500
CTTGTAATTT	GCAAGCCCTG	GGTATCTCAA	CGAAAGTTTT	TACCGCACTC	CCTGCCAAGG	1560
AGATTGGAGA	TCGTTTTCTC	ACATTCCTGA	AACAGCACCA	AATCGATACC	AGTTCAATCT	1620
GTGCGCTTGG	CGATCGAATC	GGCCTCTACT	ATTGGAGAA	CGGCTTTGGT	TGTGTCAAA	1680
GTGAAGTTTT	CTAGATCGT	AAGCATACGA	GTATCAGCCA	GATTGGCCCA	AACATGCTAG	1740
ATATGATATC	TCTCTTTCAG	GGGATTAGCC	ATTTTCAITTT	TACTGGAATC	ACCGTAGCTA	1800
TCGGTCAAGA	GGTCGGTGG	ATCCTCTCC	TACTCTTGG	AGAAGCCAAG	CGCGAGGAA	1860
TTGTGTTTT	AATGGATCTC	AATCTGAGAA	CAAAGATGAT	TTCACTCCTA	GAAGCCAAGT	1920
ATGAATTTTC	TAACTTTGCA	CGTTTACTG	ACTATTGCTT	CGGTATTGAT	CCTCTCATGA	1980
TTGATGACCA	AAATCTAGAG	ATGTTTCCAA	GAGACAGTGC	TAGCCTAGAA	GAGTGGAAA	2040
ATGCGATGCG	ACTTTTAAAA	GAAGCCTATG	GTTTCAAGGC	CATTTTCCAT	ACCTTCGGCT	2100
CTAGTGATGA	GCAAGACAAA	AATGTCATAT	AAGCCTATGC	TCTAGAAGAA	CTATTGGAAG	2160
AGTCTGTCCA	ACTAAAAACT	GCAGTCTATC	AACGAATTGG	TAGCGGGGAT	GCCTTTATAT	2220
CTGGTGGCCT	TTACCAACTA	CTCCATCAT	CTTCCCTAAA	AACATACATT	GACTTTGCAG	2280
TTGCGAGGCG	AACTCTCAAA	TGCACCTCTC	CAGGAGACCA	TCTCTCCACT	TCCTCAACTA	2340
GTATTGAAAA	TTTACTGGCA	AATGCACAA	ATATCATTTG	TTAGAGAGAT	TACATGACCA	2400
AATCAGATAC	GATTATTGAA	CTAAAAAACC	AAAAAATGTT	CGCTGTTATT	CGAGGAAATA	2460
CAAAGGAAGA	AGGACTACAA	GCCTCGATTG	CTTGATACAA	GGCGGATATC	AAAGCTATTG	2520
AAATGCCTTA	TACCAATCAG	TATGCAGGAC	AAATCATCAA	GGAATTGTA	GACTTGATATC	2580
AGGACGATCA	GAGTGTTTGT	ATCGGTGCAG	GTACTGTGCT	TGATGCCGTA	ACTGCTAGAG	2640
ATGCATCTCT	AGCTGGAGCA	AATTACGTTG	TTTCTCATATC	TTTCCATGCT	GAAATGCCGA	2700
AAATGTGCAA	TCTCTACAGC	ACACCGTACA	TCCAGGCTG	TATTACCCCT	ACAGAGATCA	2760
CGACTGCAC	TGAAGCCGGT	AGTGAATCA	TCAAJCTCTT	CCGAGCTAGT	ACTCTCAGTC	2820
CAGCATATAT	CTCTGCAGTC	AAGGCACCGA	TCCACAAAGT	TTCCGTAATG	GTAACCGGAG	2880

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GAGTCG9CCT AAACAACATC CCTCAATGOT TCGCTGCTGG TGCAGATGCC GTTGGAAATG 2940
 GTGGCGAACT CAATAAACTC GCTTCCCAG GCAACTTTGA CCGCATCAGC GAGATTGCCC 3000
 AACAGTATAT TACACTCAGA TAAATCATA ACTACCCGTC TAACGGGTGG TTTATCTCAG 3060
 AGCTATAAGC CCAATATCTC AGCCAGCCGC TAAAGACGCT GGCCTTCAGC TTGTTCAAGC 3120
 CTATTGTGCT TTGACTUGTC ACTTGCCTCT TTAAGAGACT TTGTATTAC TTACCCTAT 3180
 CCCTAAAGGG ATCCTCATAT TCTTTTACAC TCAATTTATC TAGTGTCTATA GTAGATTGAA 3240
 ACTGGAATAG TACACCTCTG CTTCATAAAC ATTGTTAAAA ATGGAATTTGA CTGTCCTGAT 3300
 CGATTTTGTG CTGTTCTTAT TTCAITTTAC TATATATCAT ACTTTACTCG TTCTCAAAT 3360
 TTCTACTCTA TGAAGAAATC ATCCACTCGA TAATTTCTTT AATCTTGACT ATATTTCTTA 3420
 ATTGTGGCTT CATTAAGCCC TACTGGACTT ACATAATAAC CTTCCTCCCA GAAATGCCGA 3480
 TTCCCAAACT TGTACTTGAG ATTGGCGTGT TTGTCAACA TCATGAGTGC ACTTTGCGCT 3540
 TTTAAATACT CCATAAAATC TGAACACTT AGCCTCGACC GAATACTGAC TATCATTTGT 3600
 ACATGOTCTG GCATTAAGTG ACCCTCGATC ATTTCAACAC CTTTATAACT ACACAAGCGA 3660
 TGAATATATT CGTCTAAACT ACTTCTATAT TGAATATAGA TGACTTTTGG TCTATACTTA 3720
 GGGGTGAACA CAATATGATA GAACACCTCC ACTTTGTGTA TGATAAACTA TGAGTCTTTT 3780
 GTGCCATATT TTTTCTCCTT TCGCTTTTACA ATTTGATTTA ACACCTTTAT TGTATCGGCT 3840
 TTGGAGTTT TTGGTATAA CCTTCGACGC GCACCGTAT AGCGGTTGTT TGTTTTGTCT 3900
 CGCACCTCAC GGAGCGAGAC GGAATAATAT AGTGGAGTGA AATAGGATAC GAACAAATTG 3960
 ATTAGGAAAA TCAATGAAT TTATAGAAAT CTTTTCAGAG TTATAACGTT CTATTCTAGT 4020
 TTCAAAAGCG TATAGTCACA TAATATGAA GTAAAAAGG ATAGATATCA ACTTATCCTT 4080
 TTTTAAAGA AAAATCGAA GATATTGGC CTTCCTCGGA TTTTCTTAT TTTCCACAGT 4140
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 AAATGCCCCA AGTAGCAAGA ACCCTGAGCT TGCCAGATT GACTGACCTT CTCCTGTCTG 4260
 AGGGAGATTC TTTTGATCGG AATGOTCTTT TTCCCTCTCA GATTTTCTCT TTTCTTTTGA 4320
 ATTCTGTACT TTGGCTGAG CTGCTTGCTC TAGCTTTTTA AAGACTTCCT GATCTGGAGC 4380
 TGATTTCTGG GTTCAAGAT TATAGTAGG AACCTTATAT TCAATCCCTT CTTTTCGAAT 4440
 GGTATAGACT CCACGTTTCA AAACCTTGAA TTGGTTGGAA ATAGTAGAGA CAGAATCATC 4500
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 ATTTTCGATG AGGCTACTTT CTAACCTCTT TATCATTTGA TTGAAGGTGG CAAGATCCAC 4620
 GTTAGGAATG AGCATATAGC CATTAAGATC TCTATTTCG TTATGAGGCT GACTAATGCT 4680

AAGAAATTC	TTTTCAACT	CCTTGCTGA	CTGCTCTTA	TTGATATCT	TCCAGGCTCC	4740
CTTTTGC	AAAGCTT	TACTGATTGA	ACTCTCTTA	AAGAAAAAGT	AACCAATATT	4800
CTTTTTCG	AAAGCTT	CTAAAAAGAC	ACTTTGGTT	TCAGGATAAT	CCTTTTCTTG	4860
TTCTGTAA	GAGGCTTCT	TATCATGAC	ATAGACTTTA	TATGGATTAC	CTGATTCAG	4920
TTTCTCTGG	TCAATTGTAG	TTCCAGCAGT	ATCTGTGAA	GTGTTTGG	TATGCTTCC	4980
TAAAAAGG	ATCTTATCCT	TTAGCATRAA	CCAGCTCTTA	TGAGCAGTCA	ATGTTTGATT	5040
CCAGTTGGT	AAATCCATGG	TTGCTGCTGC	ATTGGCATCA	TCTATTGTC	TGTTTCCAA	5100
GAAAGCAG	GGTAAAACTT	TACCTGTATC	GCTATCGCT	CTCTTAGCAT	CGTCTCTGT	5160
TGTACGAG	ATCTTATATG	GATTAACGT	TGGCCAGTAG	CCATCGCTAT	AGTGACTCAA	5220
ATCGCCATT	TAAAGATAGA	ACATCCCATC	ACTCGTATAC	CAACCAGTT	TATTTTCTCT	5280
GTCTATGTT	TCTTAATTCA	AGGTACGACT	GGAAAAAGT	GACAAAGCAA	ATCCAAACCC	5340
TTTCTCTGA	TTGTACATGG	CTGTTTATC	CATCTTCTTA	AAGGCAGATA	GGTAACTTGG	5400
TCTTGAACA	CTTGGCAGTC	CTGCATCACT	TAAACAAGGAT	TGCATCAAA	TGATATCCTT	5460
ATAAGTCTT	AAATCTTAA	AGACATCAFA	ATACTATCC	GATTGAACAA	TGCTCTTCA	5520
AAGACTCTC	AAACATTTT	TGGTTTCTCC	TTGAGACATA	TCCGCTATTC	GGTGAATCCC	5580
TCTTAGTACT	TCTACTGCG	CCAAGTCCC	CTGCTAATT	G'ACGACTGA	TGAGCGTCC	5640
ACGACTCAFA	TCCATCAACT	CTCCATTCA	CAGCAAGGA	GCAAAAGATT	TATCAATCCA	5700
GTGGTACATG	GTTTGCATT	TATCTTTATC	GATGGGATTC	TTGGTCTTTT	GAATGACTGG	5760
CAACAGTTGA	GACAGGCCAT	CAATCAAAAC	ATCCCATAA	GCACCGTAT	AGGCAACATT	5820
GGTGCTGTCG	ATATAGGATC	CATCTTGATA	AAAACCTTCA	CCTTGGTCTA	CCAAGTTGAA	5880
CACCTGCTCA	ATCGAGCGAA	TGGTAGAAGA	AAATTTCTGA	TCACTCTTAC	GCAGTAAACC	5940
AGCTATTA	TTTACCTTC	CCATATCAAC	TAAATTTCCA	CCTAGAGCCT	TGAATGGGT	6000
ATCACTCTGC	TTTCGGAAT	GTTCGGGATC	TGGTACAAAT	TTTTCAATCA	CATCTGTATA	6060
TTTTTTTAA	TTCTCATCAG	AGAAATATTC	TTTCATCAGA	GACAAAGGAT	TGTTGATGTC	6120
ACGAGGTGTA	CGATTTCAT	AAATCCACCA	GTTCCTCA	ATGCTCTTTT	CATATTTGTA	6180
GACATGTTTA	TGCATCCATT	CCATGGAATC	CCTGACTGTT	GCAAGCAGAG	TTTCATCTTG	6240
ATAATAACGA	GAAAGAGAT	TGCTCACTTG	CTTGGCCATC	TCTTCCAATT	TCCGATAAGT	6300
GGCAGTCAGA	TTTGCAGAG	TTTTATAATT	TGAAATTTT	TCCCAAAAT	AGGTGCGGTC	6360
CGCTGACTT	GAAATACTGG	ATAGGCTATC	AGCTACCTTT	CCTTCCAATT	CTGGTTTAA	6420

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TTTGCCATC TGTTCATTT TAGAATCATA GTATTGATTC	CCAGCGATGA TGCCATTCCA	6480
GTCAATCCAAA CGGTCTGTGT ATGCATCCTT AACAGAGGCC	AGAATCTTCA AAGGAATCTT	6540
TTTCACTTCC TTGCCATCTT TACTGACAAAT GACATGGT	GTCCCTTCCT TAAGAGGTTC	6600
TAAAAATCCA TTTTGGACTG AAGCAACGTC AGGATTTTCT	ACCTTATTAAG TATAGTCCGC	6660
AAGAGAAAAA ACATCTTTTT TTCCAATTGG TAAATCAATC	TTTTCTTCAA GCTGTTTATC	6720
TGTTTGAGAA TCCTCAGAAA GCTGGTCTGC TACCTCTACC	AGCTCAATAT CCTTAAAGGA	6780
AACAGTCCCA GTTCTCTGTT CATAGAATAA CTCACGCTG	ATTTTATCAA CATCTAAAGT	6840
CGGGCTATAG TCTGCTTCAA TGGTCTGCCA GTCCCTTGT	CCTGACGTCG TTGCAGAAAT	6900
CCACAATCGC TTGTCTTAC CACTTCTCTC AATGATACGA	ACTTTGGCAA TCCCGATTTT	6960
ATTATCTGTT TTAATCTTGA AACGCAGTTT ATACTTTTTC	TTAGCTTCAA TAGGAACCAT	7020
ACGGTGAAGC GCTGCCCTTA ATTTCTCATG GCTTGAGATA	GTGATAGCCC CATCCTTAGC	7080
CTCAATGACT CGAGTTGAGG CATCTGCACT ATCTTCTCG	TCTACCCAAG CTGACCACCC	7140
CCTGAGCTTT GCTTCTGTG CCG		7163

(2) INFORMATION FOR SEQ ID NO: 68:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 9244 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 68:

CGTTATAACA TACATGTAAG CGGTACCCAA AATGGTGCCA AGTCAAAATT	TTTAAGGAGG	60
AAAATACATG TCTTCACATC CAATTACAGGT CTCTCAGAA ATTGGGAAAC	TGAAAAAAGT	120
TATGTTGCAC CGTCCAGGCA AGGAGTTAGA AAACCTGTTG	CCGGACTATC TTGAAGGCT	180
TCTTTTGAT GATATTCTCTT TCTTGAAGA TGCTCAAAA	GAACATGATG CATTTGCCCA	240
AGCTCTTCGC GATGAAGGAA TTGAGGTTCT CTACCTAGAA	CAACTCGCTG CTGAATCAT	300
GACCTCTCCA GAAATCCGCG ATCAATTTAT CGAGGAATAC	TTAGACGAAG CCAACATCCG	360
TGATCGTCAA ACCAAGGTTG CTATTGCTGA ATTGCTCAC	GGCATCAAGG ACAACCAAGA	420
ATTGGTTGAA AAAACAATGG CTGGGATTCA AAAAGTTGAA	TTGCCAGAAA TTCTGACGA	480
AGCTAAAGAT CTAACCTGACT TAGTTGAATC AGAGTATCCA	TTTGCAATTG ACCCGATGCC	540
AAACCTCTAT TTCACTGCGC ACCCATTTGC AACAATTGGA	AACGCCGTAT CGCTTAACCA	600
CATGTTTGCA GACACTCGTA ACCGTGAAC ACTCTACGGT	AAGTATATCT TCAATACCA	660

CCCAATCTAT GCGGAAAAG TGGATTGGT CTACAACCGT GAAGAAGATA CXXGTATCGA 720
 AGSTGGAGAC GAGTAGTTC TTCTTAAAGA CGTCCTTGCA GTAGGTATCT CTCAACGTAC 780
 AGACGACGCT TCTATCGAAA AACTTTGGT CAACATCTTC AAGAAAAATG TTGGCTTCAA 840
 GAAAGTTTGG GCTCTTGAA TTTGCTAACAA CGGTAAATTC ATGCACTGG ATACTGTCTT 900
 CACTATGGTA GACTATGACA AGTTCACTAT TCACCCAGAA ATCGAAGCGC ACCTTCACGT 960
 TTACTCAGTT ACTTACGAAA ACGAAAAACT TAAATCGTT GAAGAGAAAG GTGACTTAGC 1020
 TGAACCTCTT GCTCAAAACC TTGGTGTAGA AAAAGTTCAT TTGATTCGTT GCGTGTGG 1080
 CAATATCGTA GCAGCTGCGC GTGAACAATG GAACGACGGT TCTAACACTT TGACCATCGC 1140
 ACCTGGTGTG GTAGTTGTTT ATGACCGCAA TACCGTGACC AATAGATTT TGGAAAGATA 1200
 CGGCTCTGCG TTGATTAAGA TTCGCGGAAG TGAATTGGTT CGGGGCGGTG GTGGACCTCG 1260
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 CAGCTTCTTA GCAGAAAAAG ACTTTACCCG TGCAGAGTTA GAATACCTTA TTGGTCTTTC 1440
 AGCTCACTTG AAGATTGGA AAAACGCAA TATTCACAC CACTACCTTG CTGGCAAGAA 1500
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 CGGTCTAAT GACGAATGGC ACCCAACTCA AATGCTCGCT GACTACTTGA CTGTTCAAGA 1800
 AAATTCGGT CGCTTGAAG GCTTGACATT GGTATCTGT GGTGATGGAC GTAACACGT 1860
 TGCCACAGC TTGCTCGTAA CAGGTGCTAT CCTTGGTGT C AATGTTCAACA TCTTCTCACC 1920
 AAAAGAACTC TTCCAGAAA AAGAATCGT TGAATTGGCA GAAGGATTTG CTAAGAAAG 1980
 TGGCGCACAT GTTCTCATCA CTGAAGATGC TGAATGAGCA GTTAAAGATG CAGACGTTCT 2040
 TTACACAGAC GTTTGGGTAT CAATGGGTGA AGAAGACAAA TTCCGCAACG GTGTAGCTCT 2100
 TCTTAAACCT TACCAGTCA ATATGGACTT AGTTAAAAA GCAGGCAATG AAAACTTGT 2160
 CTTCTACAC TGCTTGCCAG CATTCCACGA TACTCACACT GTTTATGGTA AAGACGTTGC 2220
 TGAAAAATTT GGTGTGAAG AAATGGAAGT AACAGAGAA GTCTTCCGA GCAAGTACGC 2280
 TCGCCACTTC GATCAAGCAG AAAACCGTAT GCACACTATC AAAGCTGTTA TGGCTGCTAC 2340
 ACTTGGTAAC CTTTATATTC CTAAAGTATA ATTTTAGATA ATAAACCGTC TACCACAGC 2400

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TATGAGGGCT GCGACTAATA GCTTTAGTCC GGTCTCTCTT TATGTAATGG TAATCTATTA	2460	
TTTCTTATAA AATATGTGAA AATCATTAA ATTGAAATCT AAACGCAATC TATTGAGTGT	2520	
GATAAAGGAG AATTTATGGC AATCGTAAA ATTTGATAGT CTTTGGGAGG AAATGCGATT	2580	
CTTTCTTCTG ACCCATCAGC AAGGCTCAA CAAGAAGCTT TAGTTGAAC AGCTAAGCAT	2640	
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TCAGAAGAAG AAGCAAAAGC AGAAGCGAA AAAAGCGGAG CGACTTTCAA GGAAGATGCT	3000	
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CAACATTGGT ACTTGGTGGA AATTCAATGG CAAACTCGTA GTCGCTATTA TTGTAGTGAC	5160
CATGCCCTT CTCTCCTTG GAACCTTCCT TCCATTCTTA TAAATAGTG AGTGAGGTGA	5220
TTCCATGAAA ATAGATATAA CAATCAAGT TAAAGATGAA TTTCTTATAT CATTAAAAAC	5280
CTTGATTTC TATCTTTCAG TACTCAATGA AGGAGAAAAA GGAACACCTT TTGGACAAGC	5340
AATCCAAGAT GTCTTAGAAA AAACCTTAGA GATTGTGGA GACATAGGTT TCATACCTTA	5400
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CATTCTCTGT CATTTGGATG TTGTTCCATC AGGTGATGAA GCAGATTGGC AGACACCGCC	5520
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CCCTTGCTC GCAGCTCTCT ATGCAGTAAA AAGCTTGCTG GACCAAGGTA TTCAGTTCAA	5640
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CTCTATGAA CAGGTTTGTA ACGGCTCTCA AGAAGCTGGT TATGATTACC AAACACTGA	5940

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TCTTGCAACA	CAAGCAGGTC	AAGACGGCAC	AGGAAGACAA	ATCTTTGGTG	ATATAGCAGA	6120
TGAACCTTCT	GGTCACCTAT	CCTTTAAATGT	CGCAGGTCTC	ATGATCAAATC	ATGAACGTTT	6180
TGAAATCCGT	ATTGACATTC	CGACTCCTGT	CTTAGCTGAC	AAGGAAGAAC	TAGTAGAGTT	6240
GCTTACAAGA	TGTGCACAAA	ACTACCAACT	CGCTACGAA	GAGTTTGACT	ATCTAGCGCC	6300
TCTATACGTC	GCAGAAGACA	GTAACCTCGT	TAGCACACTG	ATGCAAAATCT	ACCAAGAAAA	6360
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TGAATGTGCC	GTTCAGAGA	ATTGTACCG	TGCTATGGAT	ATTTATGCCG	AAGCCGCTTA	6540
TGCACTTGCA	ACTTAATCAG	GCAACTGTCT	CTACCAAAAA	AAATCGACCG	ATTAATGAAC	6600
TGCAACCCAA	AAGTTAGACA	GAATAAATCT	AACTTTTGGG	GTGTTTATT	ATGAATTTGA	6660
GTATAGAGA	TAAAGTTTCA	ATCTATGAAC	TAAAGAAAGCA	AGGACAAAGC	TTCAAAACAGC	6720
TTTCAAAAAA	ATTTGGTGTG	GATGTTTCTG	GTCTAAAGTC	ATCTGAATCT	TTGAGATGAG	6780
CTTATATAAT	CGCTTTTTC	AGTTTTCGCA	TGCTGTGTTT	GATAAACTCA	AACTTTTTCG	6840
CGGTGTTAT	GCCTGATTTT	ATAGTATATT	GAAACTAGAA	TAGTACACCT	CTCTTCTATA	6900
AACATTTTAA	GAATGCGATT	TGACTGCTCT	GATGATTTTG	TCTGTTCTTT	ATTTCAATTTT	6960
ACTATATTTG	AGCCACTTGG	TCCTTAAAGG	CTTTATTCMT	AAGCTCTTGT	AATTTTCTTT	7020
TACTATCAAT	TACTTCTGAT	TTTCCGTTGT	AAATTATTTG	AATAGGTTT	AACTTACCTA	7080
ATTCTCTGAC	ACGCTCATT	ATTTGATCTT	TTTTGAAGGC	TGCTTATGTT	TTTCTTAAGA	7140
TTTTTTCAAA	AATATATTTA	TCAGATAGCG	GTTTGTCTTC	TTCTTCAGCT	TGGTTTTTGT	7200
ATTAATTGTA	AACATAAGGA	ACAAATCCCT	CATAGTAACC	TAACTGCTCC	ATAGTTTCAA	7260
AAGCTTGTTT	TCTAATTCAA	ACCAATGCAA	CTCAGATTTC	AGCTTTTCAG	ATAAATCCGT	7320
CTCATCCAAA	TAAAGACTTG	AAATTAAGTC	TGAACCTGTT	TCTGTATCCT	GTACAGGCTG	7380
AGCACCCATA	CCAGCAAAAA	ATAAATCCGT	TCTTAGCAAG	ACCGAACAAG	CTCCTATTGC	7440
ATATGGCCCT	AAGAAAAAAC	GCTGCTTCTT	CTCAAAATGA	AATCTTTTCA	TCCCATCTCC	7500
CACTATTTCAT	TATTATCTGA	TATTTGTGAT	ATCAGAAATA	GTTGTATTTT	ACAAATCTTT	7560
CTAGTTATTTC	CCTTATCATT	CCTAATTAAG	GGAGATAACA	TACATAAATT	TTTAGTTAAA	7620
TGTATATCGA	TGTTTTTTGT	TTTTCTTAAT	AAACGCAATA	CAAAAAGAGC	CTGTACCAA	7680
GCTCTTTGTA	CTCAATGAAA	ATCAAAGAGC	AAATTAGGAA	ACTAGCCACA	GTTTGCCTAA	7740

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AACACCGTTT TGAGGTTGCA GATAGAACTG ACGAAGTCAG CTCAAAACAC TGTPTTGAGG	7800
TTGCAGATAG AACTGACGAA GTGAGTAACA TCTATACGGC AAGGCGACGC TGACGTGGTT	7860
TGAAGAGATT TTCGAAGAGT ATTAGTCTAT TATTCTCTCT CAGCGCGAAG GGCTGACAAG	7920
ATTGTGTGTC GGATATCATC CACACCATTT GGACTATTTG GTAAAAAGAT AGTTTGATTT	7980
CGTTTAGAGG CAAAGGTATT CAAGGTATCC AATACTGGT TGGTCAAGAG GATAGACATG	8040
ATTGTCTCTT CTGTATGCCC AACATTGGCT TCCTTGAGTT CGGTGATAGA CTCTGCCAAT	8100
CCATCCACAA TCGCCTTACG TTGTTGGGCA ATCCCCACAC CATGAAGGCG GTCTTTTCTT	8160
GCTTCTGCTT CAGCTGCAGT GACAATTTTA ATCTTGTCAG CTTCCGCCAA TTCCTGTGCT	8220
GGGACCGGCT TACGTTGGCG CGCATTGAT TCAATCATGG ATTGCTTAAC TTCCTGCATCT	8280
GGTTCGACCT TGGTAATCAA GGTTTTCACG ATAATGTAGC CGTAAGTCGT CATTTCTTCT	8340
GCTACTTGGT GTTGAATCTC AAGGGCAATC TCATCTTTTT TCTCAAAACAA TTCATCCAAG	8400
GTTAATTTTG GAACAGAAGA GCGAAGAGCA TCTTCGATAT AAGATTTAAT CTGAGATTCT	8460
GGACGTATGA GTTTATAGTA AGCATCTGTC ACGCTCTGCT CGTTGACACG GTACTGAGTC	8520
GCTACATTC A TCATAACGAA CACATTTGCC TTGGTCTTAG TCTCAACCAAC AATATCACTT	8580
TGCAACAAGC GCAACTGAAT CCGTCTGCA ATCGAGTCAA TCCCAAAAGG CAAGCGAATA	8640
TGAATACGCG TATTAGCAAC CTTTGGGTAT TTCCCAAAGC GTTCAATAAT CGCCACGAC	8700
TGCTGACGAA CCACATAAAC TGTACTCAGT GTGACTATCA CCAATAGGAG CACACAAACA	8760
ATCAGAAAAA TCATGAAAAA TATTGCCATA ATGGAACCTC CACAAGTATT TTCTAGTAT	8820
TATAGCACAT TTAAGAAGG CTGTGCCGTT TTACTGCGA TTTTTCCTGA AATGTCAATA	8880
ATTAGAGGTG AATTGTCTTA TTGTCGTCCA ATCTCTTGCT AAAATAACTC TTTATAAAAG	8940
GCAATCGTTT CTCTCAAGT TGGCATAAAT GGATTTCCTG GTGCGCAAGC ATCAATCAAG	9000
GCATTCTTAG AAAGGTATTC AAAGTCGAAA TCTTTTCTCT CAATACCAAG TTCAGTCAGT	9060
TTCTTAGGAA TACCTACTGT CTCAGAAAGC TTCTCAATCT CAGCAATCGC ATAAATCGGCA	9120
CATTCTTGAT CTGATTACC TTCTACATGA AGTCCCAAGC CTTTGGCAAC ATTGCGGAAA	9180
GCTCTGGTA CACGTTTACG ATTTTCACGT TCATAAATG GTAGCAACAT GGCACAGCAC	9240
ACGG	9244

(2) INFORMATION FOR SEQ ID NO: 69:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 8898 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 69:

GATCTGAACT TTATCATCAT AACTTAATTT CNTAATAAAA ACACCCCAAA AGTTAGATTT	60
TTTCTGTGCTA ACTTTGGGG TGTAGTTGAG TCATGAGCACT GACGTTTTTT TGTATGCTTA	120
TTTTGATTTG ATGTAGTTGA TACCATCTGC TTTTGGTGCG ACTGCTTTTC CAAAGAAGGC	180
TGCTAAGACA AGAATTGTCA AATCATAAGG TGCAATTTGA AGATAAACC GTGGCACTCC	240
TTGTAGGAAC GGCAATTGAG AATCGATAAC AGCCAAACTT TGTGAAGTC CAAAGAAGAG	300
ACTAGAAGGC ATAGCACC GA TTTGATTCCA TTTCCCAAAG ATCATCGCAG CAAGGCCGAT	360
AAATCCAGGT CCAACAATAG TTGTCACTGA GAAGTTAACT GAGATTGATT GCSCATAAAT	420
CGCTCCGCCA ATTCACCTTA GAAACCTGA AATAATAACC CCTAAATATC TCATCTTTGTA	480
GACGTTGATT CCCAAGGTAT CGCTGCTTG AGGATGTTCA CCGACAGAGC GGAGACGAAG	540
ACCAATTGTA GTCTTAAAGA GAATAAACCA AGCAAGGAAT GAGAAGGCCA TCGCCAGATA	600
ACCAAGTAGA CTAGTTGACT TGAAGAAGAT ATCACCACAT ACTGGGATAT TTGCCAAGAC	660
TGGGAATCA AAGCGTCCAA AAGTTTGACT TAGGTTGTGC GTTTGTCTCT TGTATATAAG	720
AACCTTAACT AAGAAAACAG CCAAGGCAGG CGCCATCAAG TTCAATACCG TACCGCTGAC	780
AACATGGTCT GCACGGAAAT GAACGTCGC TGCTGGGTGG ATGATAGAGA AAACACTACC	840
AACCAATCCT GCTACAAGCA AGGATAGCCA TGGAGTTGCT GCTCCAATTT GTTCTGCAAA	900
TTCAAGGTTA AAGACAACCT CAGAAAAGGC ACCCAATACC ATAATTCCTT CAAGGCCAAG	960
GTTTACCACA CCACCAGTT CAGAGAAAAC ACCACCGATA CTGTGTAAGA TGAGAGGTGC	1020
TGAGTAAATC AGCNTAGAAG ACACCAAGAG GGGAGCAAG GTTATAATAG ACATCTTTAC	1080
TTACCTCCTT TAACTTGTTT TTTTCGGTTT ACAAGCGTT CGATAAGGTA ATGAACACTG	1140
ACAAJGAAGA TAATAGACGC TGTTCACATG CTGACAGCTC CAGATGGTAC CTGCGCCGCA	1200
TTCATACCAG GAGCCCCAAC TTGGAGAAGC CCAAATAGGA AGGCTCCAAA GAGTATACCA	1260
ATTGGTGAGT TGGCCGCAAG CAAACTAAC GCCATTCCGT TAAATCCGAT AGCTAATGAC	1320
GAACTTTGAA CATAGACGTT CTGGAAGGTT CCCAAACCTT CAACAGCTCC ACCAAGACCT	1380
GCCAAGGCAC CTGAATTAAT CATAGATAGG AATAATATGC GCTTGGCAGA AATACCAGCA	1440
TATTCGTGAAG CATGTGGATT AAGACCAACT GCAAGGATTT CAAAACCAAG AGTTGTTTTT	1500
TTGAGCATGA ACCAAATAAC TGCAACGGCA ATGATGGCAA AGAAATATC AATATTCATC	1560
CGTGAGTTAC CAGTCAACTC AGCCAACCAA GGTGCTGTAT AGGTTGCAAT AGCCCCAACA	1620

CGAATGGTCG AATCTGTACT TTGCATGAAG TCTTTAGGGA AAGCATGGAT AAAGGCATTC 1680

CCTACATACA AGACAATGTA GTTCATCATG ATGGTTACAA TAACCTCTGA CGTCCCTAGA 1740

TAGGCCCTAA GAATACCTGG AATCGCTCGG ACAATCCAC CAGCAATCAA GGCATCAGC 1800

ATGGTTCCTA GAATCANTCAA GGGACGGGGC ATATCTGGAT GAGACAGGC AAACCAACCA 1860

CTGAGAAATCC AACCTGCCAA AGCCTGACCA GGAAGTCCGA CGTTAAAGAA ACCAGCTCGA 1920

CTGGCAACGG CAAAACCAAG ACCAATCAAG ACCAGAGGAC CCATAGCACG GAAGATTCTT 1980

CCAAATCCAC GCAGACTGCC AAAGGCTGTA TAGAACAATT TCTCGTAGCC CCAATATAGA 2040

TCATAACCGA AGATCCACAT GACAATGGCT CCGAGTAAAA TTCTTAGGAA TACAGAAATC 2100

AAGGGAACCG AAATTGTGTG TAATTTTTTA GACATCACTC TTCTCCTTTC CCAAGTTTCC 2160

ACCAGCCATC AAGACACCAA GTTCTTGTTT ATTGGTTGTT TCTGTGATA CAATACCTTG 2220

AATCTTACCA TCGTGGATAA CGGCAATAGC GTCTGAGACG TTTAAATCT CATCAATTC 2280

AAAGCTGACA ACAAGGACG CTTTGCATAT ATCAGCTCT TCAATCAGC GTTGTGGAT 2340

ATACTCAATG GCACCGACAT CCAACCCACG AGTTGGCTGG CTAACGATAA GGAGATCAGG 2400

ATCTCGATCA ATTTACGAG CAATPAATTGC TTTTGTGTTA TTTCTCTCTG AGAGTGCAGC 2460

TGCAGGAAGT AATTCACTGG CAGCCGAAAC ATCAAACTCT TCATCAGCT TTTTAGCATA 2520

AGAAGTAATA TTGAATAAT TCAAAATTCC ATTTTACTA TGTGTTCTT TATAGTAGT 2580

TTGAAGGCA ATATTTTCAG ATATCATCAT TTCCAAAATC AAGCCATCAC GGTGACGGTC 2640

TTCTGGAACG TGCCCAACAC TTAGTTCTGT AATCTGACGT GGGTGCAAGC CTACAATTGA 2700

ATCTCCTTTT AGCTCAATGC TACCAGATTC AACCTTAGCA AGACCTGTAA TGGCTTGAAT 2760

CAGTTCAAGC TGACCATTTC CATCAATCCC CGCAATACCA ACAATCTCTC CAGCAGAAC 2820

ATCCAAGAC AGATTTTAA CAGCTGGAAC ACCACGGTTT TCATTTAGCA CCAATCTTT 2880

GATAGACAAA ACCACTTCTT TTGGTTTAGA GGCTTGCTTC TCTGTTTTAA AGGAAACAGA 2940

ACGCTCTACC ATCATTTCCG CCAAAATCAGC ATTGGTAGCC CCTGCAATTT CAACGGTTTC 3000

AAATGATTTT CCACGACGGA TAACTGTAAC ACCTGTCAGAA ACTGCTCGAA TTTCATCCAA 3060

TTTGTGGGTA ATCAAGATAA TTGATTTTCC TTCTTTGACA AGATTTTCA TAATAGCCAT 3120

CAACTCATCA ATTTCTGATG GAGTCAAAAC AGCGTGTGTT TCGTCAAGA TAAGGATATC 3180

AGCCCCCGCA TAAAGTGTTT TTAAJAATTC TACACGTTGT TGGGCTCCAA CTGAGATATC 3240

TGCTACCTTG CGAGAGGGT CAACAGCTAA GCCATAACGT TCAGAAAGAG CCTTGATTTT 3300

TTTGCTAGCT CCAGCGATAT CTAGCACACC ATTTTGTAGT AATTCACATC CTAAATGAT 3360

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GTTTTCAGCC	ACTGTGAAGG	CTTCAACCAA	CATAAAGTGC	TGSGTAACCA	TCCCAGATTCC	3420
CAAGCTAGCT	GCTTTAGATG	GGGAGTCGAG	ATTGACAAC	TGACCGTTGA	CCGCGATTTC	3480
ACCACTAGTT	GGTTCAAGAA	GGCGTCTAA	CATGTTCAAT	AGCGTGAGCT	TACCAGCCCC	3540
ATTTTCTCCT	AAAAGTGCA	GAATTCACC	TTTTGCTAGG	TGCAAGTTGA	TTTTGTCGTT	3600
GGCAACAAT	CCACCAACA	CCTTGGTAAT	ATCACGCATC	TCAATGACAT	TTTCTGTGTC	3660
CATGTGCTCT	TCCTTTCAGA	GTCTTATTTT	ATTTCAATAA	AACTTGCTAG	TTTGCTTAGT	3720
AGCAAGCTTT	ACTTAGACAA	AATGACTTTG	TCTCAACTCT	TAAAAAAGCG	GGCCTTGCCC	3780
GCTTCTTAAG	AAATGACTTC	CATCCATTAT	TTTTTCAGGAA	CTTTTACGCT	TCCATCAAGG	3840
ATTTTAGCTT	TTGCATCTTC	GACAGCTTTT	TTTACCCTTT	CTGAAAGGTT	TGTTACTGCC	3900
AAGTCAACCC	CTTTATCCTT	CAATGAGTAA	ACGATCACTT	GACCGCCAGG	GAATCTCTCT	3960
CTTTCTGCCT	TGTTAGAAAT	ATCTTTTACA	GTGTACCAA	CTTGTTTCAA	AGTAGATACA	4020
AGACAAGAT	TTGATTCTTT	GCACTCTTAA	GAAGTGTATT	TACCTTCTGC	TTCTTGCTCA	4080
CGATCAACAC	CGATAACCCA	AACCTTTTCA	TTTTCAAGAC	GGCTTTCGTT	GACGATTTT	4140
GCCTCTGCAA	AGACACCTGC	ACCTGTACCA	CCAGCTACTT	GGTAAACAA	ATCTGCACCG	4200
GCTGCGTATT	GTGCGGCTGC	AATTGTTTTA	CCTTTAGCCG	CATCACCAAA	TGAACCAAGG	4260
TAGTCAACTT	GGACTTTGAT	AGATGGGCTT	ACTGACGCAT	CACCAAGCCT	GAATCTCTGT	4320
TCAAAACGAG	AGATAACTTC	AGATTGATTA	CCACTACAAA	AACCAACTTG	TTTGTCTTAA	4380
GTGTTTTTTC	CTGCAGCCAC	ACCTGCAAGG	TAACTTGACT	CATTATCAGC	GAAGTTTACG	4440
CTCGCAACAT	TCCTTTGCTC	TTTAATCACA	TCATCAATCA	AGACATAGTT	CAAGTCAGTG	4500
TGTTCTTTTC	CTGCATCTTT	AATGCAATTA	TTAAGGCAAA	AACCAACACC	GAAGATTAGG	4560
TTGTAACCTC	CAGCGGCTTG	TTGCAAGTTG	TTAGCGTAGT	CAGCTTCACT	TGTTGATTGG	4620
AAGTAAGTGA	AACCGTTATC	TTTTGAAAGA	TTGTGTTCTT	TACCCCAAGC	CTGCAAACTT	4680
TCCCAGCTG	ATTGOTTGAA	TGATTGTTCA	TCAACACCA	CAGTATCAGT	GACGATTGCT	4740
GCTTTTGCTT	TCACATCAGA	AGATGAAGCT	GGGTACGAG	AAGAGCGGTT	ACCACATGCA	4800
GCAAGTCCAA	CTGCTGCCAC	TGCAACTAGG	CCAAGACCTA	GCCATTGTTT	CTTGTTCACT	4860
ACTGAACCTC	CTAATAAGAA	TGTGCAACGA	TGTTGCAAGT	ATGGAATTGT	TGGCCACAAG	4920
GACCGTGCCA	CTCAGAGAGC	GACTCAGACT	AGTTTAAATC	TGTAAGAGAG	TATGGAAGTA	4980
ATTCCCCGAC	CGTCATCTCG	ACCGTCGATT	TATCTTTTGC	GACTAAGGTC	ACTTTTAGAT	5040
CTTGTTTCAA	AAATTCAGCC	ATCACTTGCC	GACAAGCACC	ACATGGCGAG	ATCGGTTTTT	5100
CAGTTTGACC	ATAGACAATC	AATCTTGAAA	ATTCTCTTTC	GCCTTCAGAT	ATAGCCTTAA	5160

AAATAGCTGT TCTCTCACCG CAATTGGTCA AAGGATAGCT AGCATTTTCA ATATTCACTC	5220
CCGTGTAAAC ACTTCCGTCCT TTAGCTACTA AACTGCTCC GATAGGAAAG TGAGAAATAGG	5280
GGACATAGGC ATGTTTGTGCT GTTTCAATTG CCAGTTC AACTCAGTA GTCGCCATCT	5340
GCCAAATCTCT CTTTAAAT AGCTACCCCA GCTGACGTT CGATACGGT CGCACCTGCT	5400
TCGACAAAGG CAAGAGCATC TGCATAGAA CGAGTCCAC CGCGCGCTT GACACCCATA	5460
TCAGATCCAA CTGTTTCACG CATTAAATGTA ACATCTGCTA TCGTAGCACC ACCAGTTGAA	5520
AAGCCAGTAG ATGTTTGTGAC AAAGTCAGCC CCAAGCTTTT GGGCCAATTG GCAACAACA	5580
ACTTTTCTCT GGTCTGTGAG AAGGCAAGCT TCAATAATGA CTTTCACTAA CTTATCACCA	5640
CTTGCTTCCA CTACTGCGC AATATCTGAC TCAACCAAG CTAAATTACC TGATTGAGA	5700
GCTCCAACT TGATCAACAT ATCAATCTCA TCTGCACCAT TTTGATAGC TTCCTTTGTC	5760
TCAAATGCTT TCACGGCTGA AGTTGTTGCT CCCAAAGGGA AACCTACTAC TGTGCAAAAC	5820
TTAACATCTG TGCCCTCAAG TCCTTTTGA GCATGTTCAA CCCAGGTCGG ATTAAACGAA	5880
ACACTGGCAA AGTCATACTC TCTAGCCCTCA GACRAACAAC TATCAATTG TTTTCTCTT	5940
GCATCTTGT TTAAGGCGT ATGATCTATA TATTATTTA ATTTCAATTG GGTTCCTCT	6000
CCATTTAGGA GATGATTTCT ACAATTTCAC GGATTTTTT CACTTCATCA CTTAATTTAA	6060
CACATTTTG GAAATCTGTA ACTAGTTGAG GTGGAATTT TTCATTTGTG TATACTTTTG	6120
CAACAATTC ACCCTTTGA ACGGAGTCTC CAATCTCTT TTCAAAAACA ATTCTGTTT	6180
CATAGTCCAA GSCATCAGAC TTAAGTCAC GACCAGCACC CAGCCTCATG GCATFAAGAC	6240
CAAGTCCAT AGCTGAAGA GCTGAAATGA CACCGTTTC CTGAGCAGGG ATTTCCACCA	6300
CATGAGCTAC ATTTACAGGA CGATAGAGGT CTTCGAAGT TCCACCTGG GCTTGACCA	6360
TTTCTCTAAA CTTAGCCAGT GCTTGACCAT TCTCAAGATG TTGGTGAAC TCTTCAACAG	6420
TTTTGTTAAC ATTTGCCAAA CCAAGCATAA TTTGAGCCAA TTCACAAATA AAGTGGGTAA	6480
TATCTTGACG TCCTTGACCT TGCAAAATCT CCAATGCTTC AAGGATTTCC AGACGATTTT	6540
CAATCGCTCG TCCCAAGGC TTGGCTCATAT CCGTAATCAC TGCTACTGTC TTCCGTCCAA	6600
CAACCTTACC AAGATCTACC ATAGTTTGAG CCAACTCAGC CGCTTCATCA ACCGCTTTCA	6660
TGAGGCAACC CTCACGACA GTCACGTCTA GCAAAATAGC ATCCGCCCTT GCGCAATTT	6720
TCTTGCTCAT CACCGAACTC GCAATCAAGG GAATCGTGT GACAGTTGCG GTCACATCAC	6780
GAAAGGCATA GAGAAGCTTA TCTGCTTTGA CCAGCTGTGT TGATTGGCCA ATGACAGATA	6840
CTCAAATATC CTGAACCTGA CGAATAAAAT CCTCTTGACT ACGTCTTACT TGATAGCCCT	6900

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TAATGGACTC CAATTTATCA ATTGTTCCGC CTGTATGGCC AAGACCACGA CCACTCATTT	6960
TTGCTACAGG CACACCGAAG CTAGCAACAA GAGGAGCTAA AATCAAGGTT ACCTTATCCG	7020
CGACACCACC AGTAGAATGC TTGTCAACTT TCACACCATC AATGGCTGAC AGGTCAAACT	7080
CTTGCCCACT CTTAACCAFA TTCATCGTTA AATCAGAGAT TTCTCGAGTC GTCATCCCTT	7140
TAAATAAACC AGCCATAGCA AAGGCAGACA TCTGATAAT AGGAACAGTT CCTGATACAT	7200
AGCCTCTCAT CAGCCATTCA ATTTCACTTG AAGTCAGTTC TTGACCGTCT CGTTTTTTTT	7260
GGATTAATTC AACTGCTCTC ATTCCTTCAC ACTTCTAAGG ATATAGTATC CCTTGTCTTT	7320
TTTAAGGATT TCACAATTGC CAACACATC TTCCATCTTA GACTTGGCAC TTGGAGCTCC	7380
TTGTTTTTTC TGGATGACGA TGGTCAAAAT TCCACCAATT TCCAAGAAAT CTTTACTTTT	7440
CTCGATGATT TCATGAACGA CTGCTTGCC CGCACGGATA GGAGGATTGG AAATGACATG	7500
GTCAATCCGC CCTTGAACCTC TTGCATAAAT ATTAGATTGA AATATCGTCG CTTTTCGCAIT	7560
ATTTTMTTCA GCATTTCTCT GAGCTAAATC CAGGGCAGCA GTGTTAATAT CAACCATGGT	7620
CGCCTGAAC CCGTAAACCT TGACCAAGGA CAACCTAAT GGACCATAAC CACAGCCTAC	7680
ATCTAGGACT GTCTCTCCTT GGTGACATC CAGACACTTG AGCAAGAGTT GACTTCCAAA	7740
GTCAACCATT TTCTTGCTAA AAACACCCGC ATCTGTCAAA AAAGTCATTT TTCTCCCAA	7800
CAAGTCCACT CTCAACTCAT GAATGTCGTG AGCAGCGTCA GGATTTTCTG CATAGTACAT	7860
TTTACTCATG ACACTATTTT ACCATAATTT GACTCAAAAT GTAAATCGTT TACAAATTGA	7920
TAAFAAAACG AAAAAGACCG AAGAAAGCAA GTCACGAAGC CATTTTCTTC ANTCTCTTC	7980
AACACTTATA AATAATAAAC CATTTAGAAC TATAAATATC ACAGTCCAGA TAAAAACAAA	8040
AAGTTTATCA TCTATAATCA GGCAGATTAT TATTCTTATT GCTTAACCTT AAANTACTTT	8100
ATTATCAACA AAATTCCTAA CAAAATGTTT AGATAAAAGC CCAACTGATA CGTTTATGTC	8160
AGGATTTCOA AACTTGCCA AAGTCGTATC AAATCTTCTA GTGACATGTG GAAGAAATAA	8220
CCCTCTGTGC CAATCCGTAG GACTAAAAAG CAATAACTAC CCGCAGCAAT CCAATTCTCT	8280
CATCGTTTTT TAGTAAGAAA GCAATTAAGA ACGAACAAAT AAGACAGCT GTTACAATAG	8340
CATGTCCCAT CAAAAAGTA AAACCGTAAT AGGTTTCCAC AAACATCTA CCAATTATCTG	8400
CATGTGTTCC TTTTATAAAA GGTAAAGCAA AACTTAAAT AAACAGAGT TCCAATATGT	8460
AACGTTTTAA GATTTTCATA GTACACCTCC TATAAGTTGT GAACTAAAAA GCCCCTTTT	8520
TAAAGCTTATA AATCAGTAGA ATCTATCTCC TATTTCATCA ATAAATTGAT CACTTATACT	8580
ATATACCATT GACTTACCAC ATTCAGAAA CGCTTTTATT TTTTTAGCTT TTTATGGTAT	8640
GATAGACAAA ATATCTAGGG GAAJACAAAT GACCAACGAA TTTTTCATAT TTGAAAAAAT	8700

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CAGCCGCCAG ACTTGCAAT CTTTACATCG AAGACAACA CCTCCTTGA CAGAAGAAGA	8760
ATTGGAATCT ATCAAGAGTT TTAATGACCA AATCAGTCTC CAAGACGTTA CAGATATCTA	8820
TCTCCCTTGG GCTCATTTGA TTCAGATTTA CAAGCGAAGT AAGGAAGATT TAGCCTTTTC	8880
AAAAGGAATT TTCCTCCA	8898

(2) INFORMATION FOR SEQ ID NO: 70:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13188 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 70:

TATCTTAAACG aGGATTGGGT TTATCGTCAG TCTTATTGCC CTAATTGTGG GAACAATCCC	60
TTAAATCATT TTGAAAATAA TCGGCTGTGA GCAGATTATT ACTGTAAACA TTGTAGTGAG	120
GAGTTTGAAC TAAAGAGCAA AAAAGGAJAT TTTTCATCAA CAATCAATGA TGCTGCTTAT	180
GCAACGATGA TGAAGCGTGT GCAGGCAGAT ANTAATCCYA ATTTCTTTTT TTAACTTAC	240
ACAAAAAATT TTGAGTAAA TAACTTTCTT GTCCCTCCGA AGCAATTGTG TACACCGAAA	300
TCGATTATTC AAGAAAAACC ACTTGCACCA ACTGCTAGAC GAGCAGGTTG GATTGGTTGT	360
AACATTGATT TATCACAAGT ACCTTCTAAA GGAAGGATAT TTCTTGTGCA AGATGGACAA	420
GTTAGAGATC CRGAAAAAT TACAAAAGAA TTTAAGCAAG GTTTATTTTT AAGGAAGAGC	480
TCTCTGTGAT CAAGAGGTTG GACAAATAGAA ATCTAAATTT GTATAGATAA GATAGAGGGT	540
TCAGAAATTA CCTTGAAGA TATGTATCGT TTGAAAGTG ACCTAAAAAA TATCTTTGTT	600
AAGAACAATC ATATCAAGA AAGATTAGG CAACAGCTTC AATATTAAG AGACAAAGAA	660
ATAATAGAAT TTAAGGTAG AGGAAAGTAT CGGAATTTAT GAAAACGAAA CAACCTGTGG	720
CATCAGAGA GGTGTATGAT TTCTTAAJAG TCACTGGCC TGATTATGAA ACTGAAAGCC	780
GTACAGATAA CCTAAGTTTA ATCGTCTGTA CCTTATCAGA TCCCGATTGT GTGAGATGCT	840
TATCTGAAAA TATGAATTTT GGTGACGAAA AACAACTAGC TTTGATGAAG GAAAAATATG	900
GGTGGGAAGT AGCAGATAAA TTGCCAGAGT GGCTACATAG CTCTATCAT AGATTATTGT	960
TAATAGGTGA ATTATTGGAA AGCAATCTAA AACTGAAAA GTATACAGTA GAATTTACAG	1020
AAACTTTATC ACGTTTAGTA AGTATAGAGG CTGAAATCC AGATGAAGCC GAACGACTTG	1080
TAAGAGAAAA GTATAAGAT TGTGAATTG TTCTGTATGC AGATGATTTT CAGGACTATG	1140

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ACACTAGCAT ATATGAATAG GTAGATGTTT TTATTTTGTG AACAAAAAG AGGCTCGCAC	1200
CTCTTTTCTT TATTCTTTT TATGATTTAA TACGGCATTG AGGACAAATG CGAGTAGGCT	1260
GGCTACGACG ATTCCGTTTG AGAAGAACAT TTGGAAGGCT GTCCGATGC TGACAAAGAG	1320
ATTACTGTGG TTGAGACCGA CACCTGCACC GATTGAANCA GCTGCGATAA GGAAGTTGTG	1380
TTCAATGTTA GCAAGTCAA CACGGGCGAG GATTTGCATC CCTTGAATTG ATACAAACCC	1440
AAACATTACC AGCATGGCAC CACCGAGGAC GGAGCTTGA ATGATTTTGG CAAGGCGGCC	1500
AAACTTAGGA AGCAGTCCAA GGAGAACCAG GAAACCAGCT GCGTAGTAGA TTGGCAGGCG	1560
TTTTTTGATG CCTGACAAAT TAACCAAAAC AACGTTTTGT GAAAAATCCG TGTAAAGGAA	1620
GGTGTATAAG ATTCTCCGA GAAGTACGGC CAAACCTTCT GCGCGGTATC CGTTGCGAAG	1680
GCGCGTCTGT TCGATTGGAT CCTTTGTGAT ATCAGACAAG GCCAGATAAA CACCAATTGA	1740
CTCAACCATA GACACCGTTG CGATGATACA CATCATGACA ATAGATGAGA TTTCAAAGGT	1800
TGCGATCCCA AAGTAGAGTG GAGTTGGGAC ATGGACAAGT GGAGCTACCG CAACAGGAGA	1860
GAAGTCCACG AAGCCCATAG TAGCAGCAAT GGCAGTTCCA ACAACAGAC CAATCAAAAT	1920
AGAGATAGAC TTGATAAAAT CTTTGGTAAA GATGTTGATC AAGAGGATAA TCAGAACAGT	1980
AATAGCTGCA AGCAAGAGAC TTTGACCAGT TGGCTCTGGA ACGTTATTTT CCAATATTTCC	2040
AATAGCGACA GGGATCAAGG TTAACCAAT CGTGCTAATA ACAGATCTTG TTACGATAGA	2100
TGGGAAGAGA TTGGCTACTT TTGAGAAGAT GCCTGAAACA AGAACCAGT AAATCCAGGA	2160
TGCGATAAGG GCACCAANCA TAGCGCACT ACCATGGCTT TGCCCAATCA TAATCAAGGG	2220
AGCGACCGAC TGGATGCAA CTCCAAGAAC GACTGGAGT CCAATCCCAA AGTATTGTGT	2280
GAGTTGGAGT TGGAGGAAGG TTGCCACCCC ACACATGAAG ATATCTGTAG AAATCAGGTA	2340
GGTCAACTGC TCAGCTGAAT AGCCAAGGGC TGTGCAATC ATGATGGGAA CCAGGATAGA	2400
TCCTGAGTAC ATGGCTAGTA AGTGCTGCAA GCCAAGAACG GCTGCTTGG AGTGTTTTTC	2460
TTGAGTTTGC ATTAGAGATC TGCCCTCCTA AATACGACTT GACCAATTTTC AAAACAATCC	2520
AAACAGACAA GTGATAGGAC AGGGTAGCCT GCTTTTCAA GCAAAACAG ACCATCTTGG	2580
AAGATTTTCT CAATCAGAT ACCGATAGCT TGGACTGTGG CACCGGCCGT TTGATGATT	2640
TGAATCAGC CTTTAGCAGC TTGGCCATTA GCAAGGAAAT COTCGATAAT CAAACCTTAT	2700
TCCTCTGOTG AGAGGAATT TTACAGGATA GAAACGGTGC TGGTCACTG CTTGGTAAAG	2760
GAGTAGACTT GAGCAGTTAA GATGCCTTTG TTCAATGTGA TGTTCTTAGC TTTTGTGGCG	2820
AAAATCATGG GAACGTTTAA GGCTTCAGCT GTAAAAACGG CTGGGCGAAT ACCCGACGCT	2880
TCAATGGTTA CGACCTGGT AATGCCAGTA GTAGCAAAAT TTTCGCAAA AACCTTACCA	2940

ATCTCTCGCA	TCAAGCTAAA	GTCAACTTGG	TGGGTTAAAA	AGGAATCTAC	CTTGAGGATG	3000
TTATCACCCA	AGATATGCC	ATCCTTGAGG	ATGCGCTCTT	CTAATAATT	CATAAGACCT	3060
CCTAAAGTCT	AAAAGTTAAT	TTACTTGTG	TTTAAATATT	TCTATAGTGA	TCCCTTTTGC	3120
TAATACTATA	TATTTGATAA	AACTATTACG	AGCGAAGCGA	GTCTTATCAA	ATATTTCCCG	3180
TTGTAGTGT	ATCATAGACA	ATAATCTGT	TATGTCTAT	GACGGGATT	TTGAGAGTAA	3240
AATAGTTCGG	GGAACATTT	TAGCCTAAGC	CTAGAAATGA	AAGAGCTAGG	GGCTCAAAAA	3300
TTAGGGATGA	AATCCCTCG	ATTCCTGAAA	TTATTCACAG	GATAATTCTA	CCTCCCGTCC	3360
GCCTAATTA	AGGGAATAT	TAAAAAAGA	CCTACTTAAT	CTCTAAGTAA	GTCCCTTAAA	3420
TAGACATGGC	AAAAACGGC	ATATCTCACT	GCTGACTTAC	TTATTGTTAG	GTGTTCCGGC	3480
ACCTGTGAGA	AACCTCGTGC	CAATTCACGA	CATAAACCAAG	TAAACCGATA	TTCAATTTTA	3540
AATAGCTTG	AGCCAATGT	TTTATTTTAC	ACTAAATAAC	TTTGAATAAC	AACATTTTGT	3600
TTAGTGTTT	CGTTTAAAA	ACGAACAAA	AGAGAGAGAG	GTGAACAAAA	ACTCCATTGT	3660
AAGCTAACAG	TTATATAAAA	TGAAATCAA	AGAGCAAACT	AGGAAGCTAT	CCACAACCTC	3720
AAAACACTCT	TTTGAGGTT	TGGATAGAA	TGACAGAGCC	AGTATCATAT	ACCTACGGTA	3780
AGCGGACGTT	GACGTGGCTT	GAAGAGATT	TGGAAGAGTA	TTAGAAGATT	TTTCCATCAT	3840
AAAAGCATA	CTATCAAGCT	TTTAGACACC	TGACAATATG	CCTTTTTTCTA	ACTTTTAAAGA	3900
CTTTTCCCAA	TTTTTATTAT	TCTACTCGCT	AAATCTTAAA	AAATAGCCAT	CTGGATCCAA	3960
AACCTGCAAT	TTATGAGGAT	AGATATAGG	ATCACTGACA	CGAAACTTTC	TTTTGGTCAA	4020
GGGACGATAA	ATAGGATAGT	TTGCCCTCAT	CACTCTTTAA	TAGAGTTTTG	AAACATCCTT	4080
TATGCCAAAG	GAGAGATTGA	CTCCACGACC	AAAGGGATAG	GTCACTTCAG	CTAGTTGATC	4140
CTTTGTTCCT	TCCTTAACA	TTAGTTGACA	CTCTTCAGGA	GAAAGAGAAA	GTTTTCTTCT	4200
GGACGTTGTT	ATTCAATCCT	AAAACCCAGT	AAACCAAGT	AGAAGGACCG	GGACTGTTCC	4260
ATATTGATA	CAAGCAACTC	GGGAATGACC	GCATTGTAGT	CCATATAGAA	AACTCTTACA	4320
AGTCAATTT	CAAGCAATC	GGTGTATGOT	CTTGCGGAGC	ACCTGAGTCA	ATCATATCAG	4380
ATTTAGTGAC	CTTGTGAGCG	ATACGGTTAC	TTGTGAGCCA	GATGTGATT	CTCCAGCCTG	4440
TATTTGTGAT	TTTGAAGTT	TTGCTGCTT	GTGCCCAACA	AGTGTAGGCT	TCAGGAACAT	4500
CGCCATGAAC	ATGGCGGAAG	GTGTCTGTAA	ATCCAGTTGC	CAAAAGGTTG	GTAAATCCAG	4560
CACGTTCCCT	GTCAAGTAAT	CCAGGTGAAC	GGCGGTTGCT	AGCAGGATTT	GCAAGGTGCA	4620
TTTCATTTGT	GGCTACGTTG	TAGTCACCG	TCGCAAGGAC	TGGTTTCTCT	TTGCTTAGTT	4680

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CAGCCAAATA CTCAGCATAT TTGGCATCCC AGACTTGGCG TTCTTCCAAG CGTTTGAGAC	4740
CGTCACCAAGC GTTTGGAGTG TAAACTTGGG TTACGAAAAA TGCAATCAAT TCTAGAGTGA	4800
TGATACGACC TTCCAAGTCC ATGTAGAAAG GGGCACCAGT TTCTGGGAAG CTGATAGTAG	4860
GTGTAAAGTTC TTCTTATATA AGGAACATGG TTCCAGCATA GCCTTTACGG GCAGGCTCTT	4920
GGCAAGAGCG CCACGTGTGT TCGTAGCCTG GGAAGAGTTC TTCTAAAA TTCCACGTGT	4980
TTCTTTGTAG TCCTTTGGCA GAAAGCTTGG TTCTTTGGAT AGCAATGATA TCAGCATTTT	5040
CAGCGACCAA GGTTTGTAGG ACTTCTGGG ACAATTGGC ACGAGCTGAG TCACATAGTA	5100
GGCAGCGGT TAGGAATCA ATATTCCATG AGATAAGTTT CATAAAGTTA CCTTTTCAT	5160
TCAGATTATA GATTTTATTA TACCAAAAAA AGATCTATTT CCCAACGTA TGGTTTGAAA	5220
AATTAATCTC TTTCGTTTAT AATTAAGAAT GATTTTATGA AAGGGAGTGA AAATACATGA	5280
AATTCATCTC TTATGACTAT GTACTCAGCC AAATCGGTGA GCAAAATGGT ATCATGGTTG	5340
GCTTTGGGAT TGTCTATTA GCTGTGACAG TTTTTTTTGC TTTCAGGCA TACCATAATA	5400
AAAAAGGAAG CGAATTCTGT GAGTTGGTCA TGATTTTACA TCTGGCCTTA TTTAGCTCTG	5460
CTTTTGGTCA GCATCAGGAC TTATCAAAAC AATCAAGTTT CTAACAATAA ATTTCAAAC	5520
TCATCTTATT TCATGAGGT TGTTTCCAAA GATTTGTGAG TAGACAAGTC AGAAGTCTAT	5580
GTTAATATCT CCACAAACAC AGATGGCGCA CTATCAAGG TGGGAGATCG CTATTATCOT	5640
GCCCTAAATG GAAGTGAGCC AGACAAGTAC CTGTTAGAGA AAGTOGAAT GTATAAGACA	5700
GACGCAATTG AACTGGTGGG TGTGAACAAA TGACACTTAA TTATATCGAA ATTTTAAATCA	5760
AACCTGGCTT GACTCTCAAA TAGCTCAACA ACAATGTTC CTTTGTGAAA CGTTTGATFG	5820
ATGGTAAGCC AACTCTCCTT ATCAAAAATG GGAATATGGA CCCAGAGCC TGTGTTTCTG	5880
TTGGTTTTGC TGCATGGAT GTATCCCTCA AACTTCTGAG CCAAGGGATT TTCCAGATGA	5940
AGCAAGTCAA ACGAGCTGTG CAAGAGCAAA ATGGGCAACT CATCGTTGTG CAAATGGGAG	6000
ATGAAAATCC TAAGTATCCA GTTGTGACTG ACGGTGTGAT TCAAGTAGAT GTCTTGGAA	6060
CGATTGGTCG TAGCGAAGAG TGGTTGCTTG ATACCTCAG TAAACAAGGG CATGACAATG	6120
TAGCCAATAT CTTTATTTGT GAATATGACA AGGGTGCTGT TACAGTCGTA ACTTATGAAT	6180
AAGAAAAACC TGGGGCTTTG TACTCTTCCA AAATCTCTTC AAACCGCGTC AAGCTGCGCT	6240
TGCCGTATGT AGGTTACTGA CTTCTGTAGT TCTATCTACA ACCTCAAAAG AATGCTTTGA	6300
GCAGCCTGCG GCTAGTTTTC TAGTTTGTCT TTTGATTTTC ATTGAGTATT GGCCTCAGGT	6360
TTCCATTGTC AATCAGAAAG GGATTTTATG TCCATTAATC AAAAACTTTG GTGGTTTTTC	6420
AAGTTAGAAA AACGCCGTTA TCTAGTCGCA ATTTGTGGCC TGATCTTGGT TTCCGTCCTC	6480

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ACCCAGCAGG ACCTCCTCT TAGCCTATTT TACTTGCTAC TTGCAGCCTT TGGTATGTAC	6600
TATTTGGGCT ATGTGTGGCG TATGTATATC CTTGGGACCT CTTATTGCTT GGGACAGATC	6660
ATCGGCTCTC GCTTGTTFAA GCATTTTACA AAAATGTCGT CAGCCTTTTA TCMAACCTAT	6720
CGAGCGGGTG ATCTGATGCG ACACGCAACC AATGATATCA ATGCCTTGAC TCGTTTAGCA	6780
GGTGGCGGTG TCATGTCTGC GGTGGATGCC TCTATCACGG CTCTGGTGAC TTTGTTGACC	6840
ATGCTCTTTA GCATCTCATG GCAGATGACT CTTGTTGCCA TTCTCCCOCT ACCTTTCATG	6900
GCCTATACGA CTAGTCGCTT AGGGAGAAAG ACTCATAAGG CCTTTGGCGA ATCCCAAGCT	6960
GCTTTTTCTG AACTCAATAA CAAGGTACAG GAGTCCGTAT CAGGTATCAA AGTGACCAAG	7020
TCTTTGGGTT ATCAGGCAGA CGAGTTGAAG TCTTTTCAGG CAGTCAATGA ATTAACCTTC	7080
CAAAAGAACC TGCAAAACAT GAAATATGAT AGTCTCTTTG ACCCTATGGT TCTCTTGGTT	7140
GTTCGTTCTG CCTATGTTTT AACGCTTTTG GTTGGCTCCT TGATGCTTCA GGAAGGGCAG	7200
ATTACAGTTG GGAATCTAGT CACCTTTATC AGCTATTGCG ATATGCTGAT CTGGCCTCTT	7260
CTGGCCATCG GTTTCCTCTT TAATACTACT CAGCGAGGGA AGGTTCTTTA CCAGCGGATT	7320
GAAAATCTTT TGCTCTAGGA ATCTCCTGTA CAAGACCTCG AGTTTCCTCT GGATGGTATT	7380
GAAAATGGGC GTTTGGAGTA TGCCATTGAC AGCTTTTGCTT TTGAAAATGA GGAACACATG	7440
ACGGATATTC ACTTTAGTTT GGCAAAAGGG CAAACACTGG GCTTGGTTGG GCAGACAGGC	7500
TCTGGGAAAA GCTCCTTAAT CAAGCTCCTC TTGCGTGAAT ACGATGTGGA TAAGGGTGCC	7560
ATTTATCTAA ACGGTACGA TATTCGGGAC TATCGTCTGA CAGACCTTCG CAGTCTCATG	7620
GGCTATGTTT CTGAGACCA GTTTCTTTTT GCGACTTCAA TCCTAGACAA TATCGGTTTT	7680
GGCAATCCTA ACTTGCCCTT TTCACGGCTG GAGGAAGCTA CTAAGCTAGC CCGGGTTTAC	7740
CAAGATATTC TAGACATGCC TCAAGGATTT GATACGCTGA TTGGTGAAA AGGAGTCACT	7800
CTTTTGCTG GTCAAAAGCA ACGGTTGGCT ATGAGTGGGG CTATGATTTT AGACCTCGAT	7860
ATCTTGATTT TGGATGATTC CTTATCCGCC GTAGATGCCA AGACAGAGTA TCGGATTATC	7920
GACAACCTCA AGGAGATGCG AAGGACAAG ACAACCATTA TCACTGCCCA TCGCCTCAGT	7980
GCTGTGTGCC ATGCAGATTT TATTTTAGTT CTACAAAATG GTCAAATTAT CGAACGAGGC	8040
ACGCACGAAG ACTTCTAGC TTTGGATGGC TGGTATGCC AAACCTACCA GTCTCAGCAG	8100
TTGGAAATGA AAGGAGAAGA AGATGCAGAA TAAACAAGAA CAATGGACTG TATTGAAGCG	8160
CTTGATGCTT TATCTCAAGC CTTATGGACT CCGACCTTTT TTGGCACTCA GTTTCTCCT	8220

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AGCGACGACG	GTCATTAAAA	GTGTCATACC	CCTGGTGGCT	TCCACCTTTA	TCGACCAGTA	8280
TCTCAGCAAT	CTTAACCAAC	TAGCCGTTAC	CGTTTTCGTC	GTCTACTATG	GTCTCTACAT	8340
CCTACAAACT	GTAGTTCAGT	ATGTCGGCAA	TCTTCTCTTT	GCCTGCGTGT	CTTACAGTAT	8400
TGTTAGGAGT	ATTCGTCCGG	ATGCCCTTTC	CAATATGGAG	AAACTGGGCA	TGTCATTACT	8460
TGACAGAGCG	CCAGCAGGTT	CTATCGTTTC	TGCTTTGACC	AAGATACCG	AGACGATTAG	8520
TGATATGTTT	TCTGGGATTT	TATCCAGCTT	TATCTCAGCA	GTTTTATCT	TTCGTGACAAC	8580
CCTTTATACC	ATGTTGGTGC	TGGATTTTCG	TTTGACGGCT	TTAGTCTTGC	TCCTTCTTCC	8640
TTTGATTTTC	CTTTTGGTCA	ATCTCTATCG	AAAAAAGTCA	GTGAAAATCA	TCGAGAAAAAC	8700
CAGAAAGTCT	TTGTTCAGATA	TCAATAGTAA	CGTGGCAGAG	AATATCGAGG	GAATCAGGAT	8760
TATTCAGGCC	TTTAATCAAG	AGAAAGCGCT	GCAGGCAGAA	TTTGATGAAA	TCAACCAAGA	8820
ACACTTGGTC	TAGCCCAACC	GTTCCTTAGC	CTTGATGCC	CTCTTTTGA	GACCTGCCAT	8880
GAGTTTGCTG	AACTTCTAG	GCTATGCAGT	CTTGATGGCC	TACTTTGGCT	ACCGTGGTTT	8940
TTCTATCGGG	ATAACGGTCG	GGACCATGTA	TGCCCTTATC	CAGTACATCA	ACCGCTCTTT	9000
TGACCCCTTG	ATTGAGGTGA	CGCAAAACTT	TTCAACTCTG	CAAAAGGCTA	TGGTTTCTGC	9060
AGGTCGTGTC	TTTGCCCTGA	TAGACGAGAG	GACCTATGAA	CCTCTTCAAG	AAAATGGGCA	9120
AGCCAAAGTC	CAAGAAGGCA	ATATCCGTTT	TGAACATGTG	TGTTTCTCAT	ATGACGGTAA	9180
ACATCCGATT	CTGGATGACA	TTTCTTTCTC	TGTTAATTAAG	GGTGAAACCA	TTGCTTTGTT	9240
AGGTCATACA	GGTTCAGGGA	AATCGTCTAT	TATCAATGTC	CTCATGCGCT	TTTATGAATT	9300
CCAGTCAGGG	AGAGTTCTCT	TGGATGATGT	GGATATCAGG	GATTTTCAGTC	AAGAAGAGCT	9360
GAGAAAAAAT	ATCGGTTTGG	TCTTTCAGGA	ACCCCTTCTC	TATCATGGAA	CTATTAAGTC	9420
CAATATCGCC	ATGTACCAAG	AAACCAAGTGA	TGAGCAGGTT	CAGGCTGCGG	CAGCCTTTGT	9480
GGATGCAGAT	TCCTTTATTC	AAGAACTTCC	TCAGGGGTAC	GACTCCCCTG	TTTCCGAGCG	9540
TGGTTCGAGC	TTCTCTACTG	GGCAACGCCA	GCTTCTTGCC	TTTGCTAGAA	CAGTCGCCAG	9600
CCAGCCTAAA	ATCCTGATTT	TGGATGAAGC	GACAGCCAAT	ATTGACTCTG	AAACAGAAAG	9660
CTTGTTTCAA	GCTTCTCTGG	CGAAGATGAG	ACAGGCGCGA	ACAACTATTG	CTATCGCTCA	9720
CCGCTTTTCT	ACTATTCAAG	ATGCCAACTG	CATCTATGTC	TTGGATAAGG	GACGCATTAT	9780
CGAGAGATGA	ACCCATGAGG	AACCTCTGGC	CTCGGGAGGA	ACCTATCACA	AGATGTATAG	9840
TTTTCAGGCA	GGGGCCATGG	CCGATACTCT	TTGAAAATCT	CTTTAAACCA	TGTCAGCTTT	9900
ATCTGCAATC	TCAAAGCTGT	ACTTTGATTT	TCAATTGAGTA	CTAGAAGGAA	ATCCTTCAAA	9960
TTACAGATTT	CTTTCACCGC	CTTTTCCATT	TTGTTGTATA	ATGAAAAATG	TTGACAAATA	10020

GTATAATAAA AACAAAGGAG AACAGCATGC TGAAATGGGA AGACTTGCCT GTGAAATGA	10080
AATCAAGCGA GGTTCAGTCT TACTACCAGC TTGTCTCTAA AAGGAAGGGT TCGCTGATTT	10140
TCAAGCGTTG CTTGGACTGG GTTTTGGGCT TGCTCTTACT GGTTCAGACC TCTCCCATCT	10200
TTCTCATCTT GAGCATTTGG ATCAGTTTGG ATAGCAAGG GCCATGATT TACAAGCAG	10260
AGCGTGTGAC CCAATCAAC CGTGGTTCA AGATTTCGAA GTTTCGTACC ATGSGTACGG	10320
ATGCGGATAA AAAAGGAAGT CTGGTGACTT CTGCTAACGA TAGCCGATT ACCAAGGTTG	10380
GAAATTCAT CGACGTGTC CGTTTGGACG AACTGCCTCA GTTGCTCAAT GTCCCTAAAG	10440
GTGAGATGTC CTTTGTGCGT ACAAGACCTG AAGTGCCACG TTATACAGAG CAGTATAGCC	10500
CTGAAATGAT GGCACCTTGT CTCTTGCAAG CAGGGATTAC CTCTCCAGCC AGCATCAACT	10560
ACAAGGATGA GGACACAATT ATCAGTCAAA TGACGGAGAA AGGCTATGCA GTTGATCAGG	10620
CCTATGTGGA GCATGTTCTT CTTGAAAAGA TGGCTATAA CCTCCCTAT CTCCGAGAGT	10680
TTAGTTTCTT TGGGGACATC AAAATCATGT TTCAAACCGT GTTTGAGGTA CTAAAATAAA	10740
GTAGTCATAA GAJAATGAGT ACAGATAAAA GGAGCAJAAT AATGCCAJAAT TACAATATTC	10800
CATTTTCACC GCCTGATATC ACAGAAGCAG AAATTACTGA AGTAGTGAT ACCCTGGGTT	10860
CTGTTGGAT CACAACAGGT CCTAAAACAA AAGAACTGGA GGGCCGCTTG TCTCTTTACA	10920
CACAGACACC TAAGACTGTT TGTCTCAACT CTGGACAGC CGCTCTGGAG TTGATTTTAC	10980
GCGTTTGGGA AGTGGGACCT GGTGATGAAG TCATCGTCC AGCCATGACC TATACGGCTT	11040
CATGTAOTGT CATTAOGCAC GTGGGAGCAA CCCCTGTCAAT GGTGGATATC CAAGCAGATA	11100
CGTTTGAGAT GGAATATGAC CTGCTTGAGC AAGCTATCAC TGAGAAAACAT AAGGTGATTA	11160
TTCCAGTAGA GCTCGCAGG ATTTGTTTGGC ATTATGACCG TTTGTTCCAA GTCGTGGAGA	11220
AAAAACGTGA CTTCTTTTACC GCTTCAAGCA AGTGGCAAAA GGCCCTTTAAC CGTATTGTCA	11280
TTGTCTCTGA TAGTGCCAC GCTTTGGGAT CTATTATATA AGGACAACT TCTGGTTCTA	11340
TCCCTGACTT TACTTCTCT TCAATTCCATG CAGTTAAGAA CTTTACAAAG CGAGAAGGTG	11400
GAAGTGGAC TTGGAAGGCC AATCCAGTGA TTGATGACGA AGAGATGTAC AAGGAATTCC	11460
AAATCCTTTC CCTTCAOAG CAJAATTAAG ATGCTCTTGC CAAGATGCAA CTGGGGTCAAT	11520
GGGAATACGA TATCGTTACA CCAGCCTATA AGTGCAACAT GACCGATATC ATGGCTTAC	11580
TTGGTTTGTG ACAATTGGAC CGCTATCCAA GTTTGTTGCA ACGCCGTAA GACATTGTGG	11640
ACCGCTATGA TAGTGGTTTT GCAGGTTCTC GCATCCATCC TTTGGCACAC AAGACTGAAA	11700
CTGTGCAATC TTCAAGCCAC CTCTACATCA CCGTGTGAGA AGGAGCAAGC CTAGAAGAAC	11760

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GCAACCTCAT CATCCAGAA TTGGCTAAAG CAGGAATTC AAGTAATGTT CACTACAAAC	11820
CGTTCCCTCT CTTCGACGCC TATAAGAAATC TTGCATTTCG TATGACCCAC TATCCTAAGG	11880
CCTATGCCCT CTTTGAGAAT GAAATACCC TCCCTCTTCA TACTAATTA AGCGATGAAG	11940
AAGTAGACTA TATCATTTGAG ACTTTCAAAA CAGTTTCTGA AAAAGTGCTA ACTTTATCAA	12000
AAAAATGACA AACTACAGTC AAGCGAAAGT GATCCTGCCC CTA AAAAGTC TAA TTGAGTG	12060
TAAAACTGT TGT TTTCAAT TGATAATAGT TTACACCTCT AGTTGAGGCC CCTTCTCCT	12120
CAGAGAGAGA ATTTTATAG GATTTTCCTT TCTGTGGGA GTCCCTCGT TTGAATAAG	12180
ATGTAGACAA TTTAGTGTAG CATTTAGAAT CCTTACTAGA CATCATTTAG AAAATCTAGT	12240
GTCTGTCTCT AGTTTCAAT TCACCCATTT TTTTGAAAGA CGTGAGTTTC CATGAGTGAG	12300
ATTGTGGAAG CTCGCTCTT TTTTGTCTT CAGAATATTG TTCAAATTT TGTGCTGTCT	12360
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TACAAATATT CTATATCTTT AGTGATGCTT GCTATACATT ATTAGATCTC CTGCGAGACA	12480
ATCTATAAAA CACTTGTCTA CGATTACCTA TATGCCCTAT TCCAGTATTT TAGAAGCACT	12540
GCATCTATTT TTATCGAGGT TAAATCTAGC TTTTATAGAA GGTCATTTTA AGAAATATAT	12600
TGTAGTGTTT TAGTTTCAAT CCGCCATATG AGCGATATTC AGGTAATAT CCTGGCGAA	12660
TGCTGTATG ACAAGGTATT GTTCTTTTCA TTTATAATTT ACAACATATC AACAAATTTA	12720
AATATAGTAA ATGGGATATT TTATATTCAA GCTAAGAAAG ATAGCATCAC TTTTGAATGG	12780
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GTAGATATAG TAAATGAAA TGAGAATAGG ACAAAATGAT CGGACAGTC AAATCGATTT	12900
CTAACAAAT TTTAGAAGTA GAGGTGTACT ATTTAGTTT CAGTCTACTA TAGAACTGAC	12960
CAAGTCAGTA ACCTAGACTT AGGGCAAGGC GGCAGTGACC TAGTTTGAAG AGATTTCGGA	13020
AGAGTATAAA TTTTAATATT TTCTGTGTTT ATTCTTGAC AATTCAATTT GGAATAATA	13080
TGATAAAGAT ATGACAGCG GTGTCATTCT ATCTATTTTA AGAAAAGTAA TAATCAATTTG	13140
TTAAAAATAG TAAAAAATT GGAGGTTCTG ATGAAATATT TTGTTCCG	13188

(2) INFORMATION FOR SEQ ID NO: 71:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 32768 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 71:

AACGAGTGCA	TCAGTCTCAG	CAAGCACCAG	TGCGTCGGCC	TCAGCAAGCA	CCAGCGCGTC	60
TGAATCGGCA	TCAACCAAGT	CCTCAGCCTC	AGCAAGTACC	TCAGCATCTG	AATCAGCATC	120
AACAAGTGCA	TCGGCTTCAG	CAAGCACAAG	TGCTTCAGCC	TCAGCAAGTA	TCTCAGCGTC	180
TGAATCGGCA	TCAACCAAGT	CGTCCGCTTC	AGCAAGTACT	AGCGCCTCAG	CATCAGCGTC	240
AACAAGTGCT	TCGGCTTCAG	CGTCAACGAG	TGCGTCTGAG	TCAGCATCAA	CGAGTACGTC	300
AGCCTCAGCA	AGCACATCAG	CTTCTGAATC	TGCATCAACC	AGTGCCTCAG	CCTCAGCATC	360
GACAAAGCGC	TCAGCTTCAG	CAAGTACCAG	TGCGTCAGCC	TCAGCAAGTA	CCAGTGCTTC	420
AGCCTCAGCG	TCGACAAGTG	CGTCGSCCTC	AACCAATGCA	TCTGAATCGG	CATCAACCAG	480
TGCGTCAGCC	TCAGCAAGTA	CTAGCGCCTC	AGCCTCAGCA	TCAACGAGTG	CGTCCGCTTC	540
AGCAAGTACT	AGTGCATCAG	CATCAGCATC	AACGAGTGCA	TCGGCTTCAG	CAAGTACCAG	600
CGCCTCAGCT	TCAGCAGCA	CCAAGTCCGC	AGCCTCAGCA	AGTACCAGCG	CCTCAGCCTC	660
AGCAAGCACC	AGTGCTTCAG	CTTCAGCAAG	TACCAGTGCG	TCAGCCTCAG	CGTCGACAAG	720
TGCGTCGGCT	TCAGCAAGTA	CCTCAGCGTC	TGAATCAGCA	TCAACGAGTG	CATCAGCTTC	780
AGCATCAACA	AGTGCTTCAG	CTTCAGCAAG	TATCTCAGCG	TCTGAATCGG	CATCAACGAG	840
TGCGTCCGCT	TCAGCAAGTA	CTAGCGCCTC	AGCATCAGCG	TCAACAAGTG	CTTCGGCTTC	900
AGCGTCAACG	AGTGCGTCTG	AGTCAGCATC	AACGAGTAGC	TCAGCCTCAG	CAAGCAGATC	960
AGCTTCTGAA	TCTGCATCAA	CCAGTGCGTC	AGCCTCAGCA	TCGACAAGCG	CCTCAGCTTC	1020
AGCAAGTACC	AGTGCGTCTG	CCTCAGCAAG	TACCAGTGCT	TCAGCCTCAG	CGTCGACAAG	1080
TGCGTCGGCC	TCAACCAAGT	CATCTGAATC	GGCATCAACC	AGTGCCTCAG	CCTCAGCAAG	1140
TACTAGCGCC	TCAGCCTCAG	CATCAACGAG	TGCGTCCGCT	TCAGCAAGTA	CTAGTGCAATC	1200
AGCATCAGCA	TCAACGAGTG	CATCGGCTTC	AGCAAGTACC	AGCGCCTCAG	CTTCAGCAAG	1260
CACCAAGTGCG	TCAGNCTCAG	CAAGTACCAG	CGCCTCAGCC	TCAGCAAGCA	CCAGTGCTTC	1320
AGCTTCAAGC	AGTACCAGTG	CGTCAGCCTC	AGCGTCGACA	AGTGCCTCGG	CTTCAGCAAG	1380
TACCTCAGCG	TCTGAATCAG	CATCAACGAG	TGCATCAGCT	TCAGCATCAA	CAAGTGCTTC	1440
AGCTTCAAGC	AGTACCAGTG	CGTCGGCTTC	AGCATCAACG	AGTGCTTCAG	TCTCAGCGTC	1500
AACCAAGTGCC	TCTGAATCAG	CATCAACGAG	TGCGTCCGCT	TCAGCAAGCA	CCAGTGCGTC	1560
GGCTTCAAGC	AGTACTAGTG	CATCGGCTTC	AGCATGAGCA	AGTGCCTCTG	AATCGGCATC	1620
AACGAGTGCT	TCGGCTTCAG	CATCAACGAG	TGCGTCAGCC	TCAGCAAGCA	CATCAGCTTC	1680
TGAATCTGCA	TCAACCAAGT	CGTCGGCTTC	AGCGTCAACC	AGTGCCTCGG	CTTCAGCGTC	1740

		576	
GACAAAGTGCT	TCGGCTTCAG	CATCAACGAG	TGCGTCGGCC
AGCGTCAGGt	TCGGCCTCAA	CCAGTGGGTC	GGCTTCAGCA
AGCAAGTATC	TCAGCGCTGT	AATGGGCATC	AACGAGTGCG
TACGTTCAGCC	TCAGCAAGCA	CATCAGCTTC	TGAATCTGCA
AGCATCGACA	AGCGCCTCAG	CTTCAGCAAG	TACCAGTGCT
TGGCTCGGCC	TCAACCAAGT	CATCTGAATC	GGCATCAACC
TACTAGTGCA	TCAGCTTCAG	CATCAACGAG	TGCATCGGCT
GGCTTCAGCG	TCAACCAAGT	CGTCAGCTTC	AGCAAGTACC
AACAAGTGCT	TCAGCCTCAG	CATCGACAAG	TGCCCTGGCT
TGAATCAGCG	TCAACCAAGT	CTTCGGCTTC	AGCAAGTACC
AACCAAGGCC	TCGGCCTCAG	CAGGCACTTC	AGCTTCCTGAA
GGCTTCAGCA	AGCACTTCAG	CTTCGAATC	GGCCTCAACC
AACGAGTGCT	TCGGCTTCAG	CAGGCAAG	GGCCTGGGCT
AGCTTCAGCG	TCAACCAAGT	CTTCAGCCTC	AGCATCAACA
TATCTCAGCG	TCCTGAATCGG	CATCAACGAG	TGGCTCTGAG
AGCCTCAGCA	AGCACTTCAG	CTTCGAATC	GGCCTCAACC
GACAAGGCC	TCAGCTTCAG	CAAGTACCAG	TGCTTCAGCC
GGCCTCAACC	AGTGCATCTG	AATGGGCATC	AACGAGTGCG
TGCACTGGCT	TCAGCATCAA	CCAGTGGCTC	GGCTTCAGCG
AGCAAGTACC	AGTGCCTCAG	TCTCAGCATC	AACAAGTGCT
TGCTTCGGCT	TCAGCAAGCA	CATCAGCATC	TGAATCAGCG
AGCAAGTACC	AGTGCCTCAG	CCTCAGCGTC	GACAAGTGCG
TGCACTCAGCT	TCAGCATCAA	CGAGTGATC	GGCTTCGGCG
AGCAAGTACC	AGTGCCTCAG	CTTCGGCATC	AACAAGTGCG
TGCTTCGGCT	TCAGCAAGT	CTAGCGCCTC	AGCCTCAGCC
AGCAAGTATC	TCAGCGCTCG	AATGGGCATC	AACGAGTGCG
GGCCTCAGCC	TCAGCGTCAA	CAAGTGATC	GGCTTCAGCG
GGCATCAACG	AGTGGTCCG	CTTCAGCAAG	TACTAGCGCC
TGCACTGGCT	TCAGCATCAA	CGAGTGCTC	CGCTTCAGCA
AGCGTCAACA	AGTGCATCGG	CTTCAGCGTC	AACGAGTGCG

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TGCGTCGGCT	TCAGCAAGTA	CCAATGCGTC	AGCCTCAGCA	AGTACCAAGTG	CGTCAGCCTC	3720
AGCGTCGACA	AGTGCCTCGG	CCTCAACCAG	TGCATCTGAA	TCGCGCATCAA	CCAGTGCCTC	3780
AGCCTCAGCA	AGTACTAGTG	CATCAGCCTTC	AGCATCAACG	AGTGCATCGG	CTTCAGCATC	3840
AACCAAGTCA	TCAGAGTCAG	CAAGTACCAG	TGCGTCAGCT	TCGCGCATCAA	CAAGTGCCTC	3900
GGCTTCAGCA	AGTACTAGCG	CCTCAGCCTC	AGCGTCAACA	AGTGCCTCAG	CTTCCGCGTC	3960
AACCAAGCGC	TCGGCCTCAG	CAAGTATCTC	AGCGTCTGAA	TCGCGCATCAA	CAAGTGCCTC	4020
GGCTTCAGCA	TCAACGAGTG	CATCAGTCTC	AGCAAGCAAC	AGTGCCTCGG	CCTCAGCAAG	4080
CACCAAGCGG	TCTGAATCCG	CATCAACCAG	TGCCTCAGCT	TCAGCAAGTA	CCTCAGCATC	4140
TGAATCAGCA	TCAACAAGTG	CCTCGGCTTC	AGCAAGCACA	AGTGCCTCAG	CCTCAGCAAG	4200
TATCTCAGCG	TCTGAATCGG	CATCAACGAG	TGCGTCCGCT	TCAGCAAGTA	CTAGCGGCTC	4260
AGCATCAAGC	TCAACAAGTG	CTTCGGCTTC	AGCGTCAACG	AGTGCCTCTG	AGTCAGCATC	4320
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CGCATCAACA	AGTGCCTCGG	CTTCAGCAAG	CACCAATGCT	TGCGCTTCAG	CGTCAAGGAG	4920
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TGCGTCAACG	AGTGCCTCAG	CTTCGCGCATC	AACAAGCGCC	TCGGCCTCAG	CAAGTACCAG	5040
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AGCGTCAACC	AGTGCCTCGG	CTTCAGCAAG	TACCACTGGG	TCAGCTTCAG	CAAGCACAGG	5160
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GCTTCAGCTT CAGCATCAAC AAGTGCGTCA GCTTCAGCAA GTACATCAAG TTCAAAATCA	5940
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ACCAATCAAT	ATCATGAAC	AGCATATGGA	GATCAAGGAA	TTTTAAATAT	GTTATTCAT	9120
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AAGAAAAGAT	AGCTATTTTA	GCAAGTTCAG	ACTATGACTT	GACCAATCAT	ATTTTTCATTT	10560
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TGCTTTATCC	ATGATGTCT	TCCCTCATG	TTTGATAGTA	ACTATTATCT	CATGAAGAT	11040
TATCTGTATA	TGTATAATCT	ATCAGATGTT	TTGATAGTGC	CGTCAGAGAG	AATGAAAACA	11100
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CCTCATGATT	TATCCTTATA	CACCCCTGCT	TTTAAAAAAG	AACTTTTTTT	TGCTGGAAGT	11220
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GACTCCCTTG TCAGAAATGG TTTTAAAAAC AAGACCAAGG ATTCCAAATG GAGCCAGATT	30060

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GATGATCCAT TCGACAATTT TAGAAGTCAC GTCAGCGATA GTTTTTAGCA ATTCCTTGACT	30120
ATTTTFACTG GCTTCCTCTCA TAGCGATTCC AAAAATGACT GCCCAAGATA AGATTCTAAT	30180
ATAGTTAGCA GTAAGCAGGG CGTTGACTGG GTTGTCAACC AGTTTGAGCA AGAGGTTGCT	30240
GAGAACTGC CCAATCCCAT CTGGTGGTGC AATTTCAGTA TTGGCACTAT TTGGGGTAAAT	30300
TTCAATAGGG ACGATGAAAT TTGCTAGTAC AGCTACAAGA GCACGCGCGA AAGTCCCTAT	30360
CATAGGATAT ACAAGAAAAA AACAGTTTTT ATATTGCTAT CTGTGCCCTT TTGATGTTGG	30420
GAAAGGGCAT TGGCAACGAG AGCAAAAGACT AGGATAGGAG CAACAGCTTT TAGACCTCCA	30480
ACGAATAAAT CCTCGAGTAG CCAATCCCT GAGAGATTAG GAAGGGTCAG TCCTAGGATT	30540
CCCCAAGG CATACCAATC AAGATAAGCT TGACAAGGCT TGCCCTAATC CAAGCATGAA	30600
TGATTCTTTT CATATAATC TCCTTTTTGT GTAGTGATTA TGATTATAGT ATAAATGATA	30660
GACAAATCA AGAATTTTCT GTCTATTTTT TGAATATTTA TGGAGAATGA GACTGATGAA	30720
AATATGGTAT AATGAATAA AGGAGTTTTA TATGCAAAJA TTTATTACAG CTTATATTGA	30780
AJAGCTAGAT GTGACAACCA TTATCGAGAA TATTCTAACC AAGGTCATTT CTCTTTTACT	30840
GCTTTTAATT GTATTTTATA TTGCTAAAAA AATGCTTCAT ACCATGGTGC AGAGAATTGT	30900
CAAACTCTCT CTAATAATGT CTCGTCAATGA TGTTGGACGC CAAAAACCA TCTCACGTTT	30960
ACTAGAAAAT GTGTTTAATT ATACGCTATA TTTCTTTTTA CTCTACTGCA TTTTGTGAT	31020
TTTAGGTTTG CCAGTTTCTA GTTTGTGCGC TGGAGCTGGT ATTGCTGGGG TAGCGATTGG	31080
TATGGGAGCC CAAGGCTTTC TGTCTGATGT CATCAATGGC TTTTTCATCC TCTTTGAAAG	31140
TCAACTGGAT GTGGGAGATG AGGTCGTTCT GACAAATGGA CCGATTACTG TATCGGGTAA	31200
GGTTGTCACT GTGGGAATTC GTACGACACA GCTTCGTAGG GAGGAGCAAG CCGTTCACTT	31260
TGTCCTTAAC CGAAATATCA CAGTTGTTAG CAATTTCTCA CGCACAGACT AGACCTGTGA	31320
TTTTAAGTAA TTTGTGTGAC AATAGAGGGA GTTTAATAAG GAGAAAAGAT GGTTTTAGAA	31380
AAGCAGTTGG GCAATGGTTG TACCTGGATA GACCTAGACC TAGGAAAGTT GAATAAATCA	31440
GAAGACCTTT CTGAAATTTA CGGTTTGGAC AAGGAAACCA TTGAATACGC ACTGATAGA	31500
AACGAGCGCG CCCACATGGA CTACCAACCGT GAAAGTGAGA CGGTTACCTT TATCTATAAT	31560
GTCTTAGACG TAAAAAAGGA CAAGGCCTAC TATGAGACTT TTCCCATGAC CTTTATTGTC	31620
GAGCATCGTC GCCTGATTAC CATTAGTAAT ACCAAGAACG CCTATGTCAT TGAACAGATG	31680
ACTCGTTATC TGGGAAACCA TGACACGCTT TCGATTATA AGTTTCTCTT TGCCAGTCTG	31740
GAAATCATCA GCAATGCCTA CTATCTGTG ATTGAGCAGA TGGACAAGAG TAGGGATGAG	31800
GTCAATGACC TCTTGGCCCA GCGAACTACC AAAAAAACCC TCTTTGTCCT GTCTGATTGG	31860

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GAGACTGGTA TGGTATATCT GACGGCAGCT GCCAAACAAA ATCGGATTTT GTTAGAGCAT	31920
ATTCAAGGTC ATGCCCTGTA TCGTAGTTTT GATGAGATTG AGAGAGAACA GTTTGATGAT	31980
GCCATGATTG AGGCTCATCA GCTGGTATCC ATGACAGACC TAATCTCTCA GATTTTACAG	32040
CAGCTTTTCAG CCTCTTACAA CAATATTCTA AACAAATATC TGAATGACAA TTTGACAACC	32100
TTGACTATCA TTTCACTCTT GCTAGCTGTT TTGGCAGTCG TGACAGGCTT TTTCCGGAATG	32160
AATGTTCCCT TACCTTTAAC AGATGAGCCC CATGCTTGGC TCTATATCAG TTTGGCTAGT	32220
GCAGGTTTGT GGATTGTTTT ATCCTTGTTA CTAAGGAAAA TTGCGAAAAA AAGTTAAGAA	32280
AAGGAGCCAG AATGGCGATT GAAAATTATA TACCAGATTT TGCTGTGGAA GCAGTCTATG	32340
ATCTGACAGT CCCAAGCCTG CAGGCGCAGG GAATAAAGGC TGTTTTGGTC GATTTCGATA	32400
ATACCTCAT TGCTTGGAAC AACCTGATG GAAGCCAGA GATGAAGCAA TGGCTACATG	32460
ACCTTCGGGA CGCGGTATTT GGCATTATCG TAGTGTCAAA TAACACCAA AAACGCGTTC	32520
AACGAGCAGT TGAGAAATTT GGGATTGATT ACGTTTACTG GGCCTTGAAG CCCTTCACAT	32580
TTGGTATTGA CCGTGCTATG AAGGAATTCC ACTATGACAA AAAGGAAGTG TCTATGGTTG	32640
GTGACCAACT CATGACAGAT ATACGAGCAG CCCACCGTGC AGGGATTCCG TCAATTTTAG	32700
TCAAACCTTT GGTCCAACAT GACTCAATCA AAACGCAGAT TAACCGAACT CGTGAGCGTC	32760
GTGTTATG	32768

(2) INFORMATION FOR SEQ ID NO: 72:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 14872 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 72:

CCAGTCACAA AGAAATTGAG CGCGTTCAGC TGAGGATGCA CTATGATGCA AGCTACATTT	60
CATTGTATGG GATATTAAGA AAGGAGATTT TCATGACACT TTTAGATGTA AAACACGTTT	120
AAAAAATTTA TAAACACGT TTTCAAGGCA ACCAAGTAGA AGCCCTCAAG GATATTCAC	180
TTACCGTAGA AAAGGGTGAC TACGTTGCCA TCATGGGTGA GTCTGGTCTT GGTAAATCAA	240
CTCTTCTCAA TATCTAGCT ATGTTGGATA AACCAAGTCG TGGTCAGGTT TACTTGAATG	300
GAACTGACAC CGCAACTATT AAAAATTCAC AGGCTTCTAG TTTCCGGCGT GAAAAGCTAG	360
GATTTGCTTT CCAAGACTTT AACTTGCTAG ATACTCTGTC TGTTAAGGAC AATATCTGTC	420

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TTCCGCTTGT CTGTCAAGA AGACCTATAA CGGAGATGAT GAAGAAATTG GTGGTGACAG	480
CTGAGAAATCT GGGTATTAAAC CAAATGCAAG AGAAGTACCC TTACGAGATT TCTGGTGGTC	540
AGAAACAGCG TGTAGCAGTA GCCCGGCCA TCATCACAGA ACCTGAAATC CTCCTTCCGG	600
ACGAGCCAAC AGGAGCCCTT GATTCCAAAT CATCTGCAGC CTTACTTGAT GTCTTTAATG	660
AAATCAATGA GCGGTGGCAA ACCATCCTCA TGGTAACCA CTCAACAGCA GCTGCTAGCA	720
GGGCCAAGCG TGTCTCTCTT ATCAAAGACG GCATCTCTTA CAAACAAATC TACCGTGGAG	780
AGAAGACAGA GCGTCAGATG TTCCAAGAAA TCTCTGATAC CTTGACTGTC ATGGCAAGCG	840
AGGTGAATTA GTATGTTTCG ATTAACCAAT AGTTAGCGG TATCGAACTT GATTAATAAC	900
CGCAAACTCT ACTATCCCTT TGCACCTGGC GTCTCTTGG CAGTCACCAT CACCTATCTC	960
TTTACTCTCC TAACCTTCAA TCCAAAGATT GCGGAAATCC GTGGAGGAAC CACCATTCAA	1020
GCAACACTTG GATTGGTAT GTTTGTCGTT ACCCTTGGGT CACCATATTC GTCCCTCTATG	1080
CCAATAGTTT TGTCATGAAA AACCGTTCCA AGGAACGGG TATATATGCC ATGTTAGGCT	1140
TGGAGAAAGC CCATCTAATC AGTATGACCT TTAAGGAGTT AGTGTATTTT GGGATTCTAA	1200
CTGTGTGAGC GGTATCGGT ATTGGAGCCT TGTGTGACAA GTTAATTTTC GCTTTCCTGC	1260
TCAAACCTAAT GAAACTGAAG GTTGAGCTGG TTGCTACCTT CCAATGAAT GTTGTCAATTG	1320
CAGTACTGTG TGTCTTTGGA TTGATTTTCC TAGGCCTCAT GTTCTCTGAAT GCTCTTCGAA	1380
TGCGCCGTAT GAATGCCCTC CAGCTCTCGC GTGAGAAAGC AAGCGGAGAG AAAAGAGTTC	1440
GCTTCTTACC TCTCCAAACG ATTTCTGGTT CCATAAGTTT AGGGATTGGC TATTATCTTG	1500
CCCTTACGGT AACCGATCCT CTTACAGGCC TAACAACCTT CTTCCTAGCT GTTTTGCTGG	1560
TTATCTTTGG TACTTATCTA TTGTTTAAAT CAGGATTAC AGTCTTCCTA CAAATCTTAA	1620
AGAAAAACAA GAAATACTAT TACCAACCTA ATAACTCAT ATCTGTTTCC AACTTGATTT	1680
TCCGTATGAA GAAAAATGCG GTTGGACTAG CAACCATCGC TATTTTGTCA ACAATGGTTT	1740
TGCTAACCAT GTCAGCAGCG ACAAGCATTT TCAATTCCGC AGAAGCTTT AAAAAAGTTC	1800
TAAATCTCA TGATTTTGGG GTTTCAGGCG AAAATGTTGA AAAAGAAGAT TTGGACAAAC	1860
TCTTGAGCCA GTTTGCAAGT GACAAAGGTT ATAGTGTCAA AGAGAAAGAA GTACTCTGTT	1920
ACAGTAACCT TGGTATTGCA AATCAAGAG GAACCAAGTT AACTATTTT GAAAAAGAC	1980
AAAACCGTGT CCAACCCACA ACAGTTTTC TGGTATTTGA CCAAAAAGAT TATGAAAATA	2040
TGACTGTGTCA AAAACTGTCT CTATCAGGAA ATGAGGTGCG TCTCTTTGCC AAAAAAGACG	2100
GACTGAAAG ACAGAAAGCT CTAACCTCAA ATGATCATCA ATTTCTCTGC AAAGAAGAT	2160
TTAATAAAGA TTTCAATGTG AACCATGTTT CAAATAAGTT TAATATCTTG ACTACTGATT	2220

ACAATTACCT TGTGTTCCCT GATTTACAG CCTTTTGGGA TCAATCCCCA GATTCGGCTA	2280
TCTATAATCA GTTTTACGGT GGTATGAATG TAAATGTTCAG TGAAGAAGAA CAACTCAAGG	2340
TGGCTGAGGA GTATGAAAAC TACCTCAATC AATTTAATGC TCAATTAGAC ACAGAAGGTA	2400
GCTATGTTTA TGGTAGCAAT CTAGCAGATG CTAGTTCTCA GATGAGTGCC CTCTTGGTG	2460
GGTCTCTCTT TATCGGTATT TTCTATCCA TTATCTTTAT GGTCCGAAC GTTCTGGTCA	2520
TCTACTACAA ACAAAATTTCT GAAGGCTACG AAGACCGTGA ACGCTTTATT ATCTTGCAGA	2580
AAGTCGGTTT GGACCCAAAG CAAATCAAGC AAACATCAA CAAACAGGTT TTAACGTGTT	2640
TCTTCTCTCC TTGCTCTTT GCCTTCATAC ATCTCGCCTT TGCTTACCAT ATGCTTAGCC	2700
TGATTTTAAA AGTGATTGGT GTACTGGATA CGACTATGAT GTTGATTGG ACCTTGCTTA	2760
TCTGGGCTAT CTCTCTCATC GCCTATGTGC TGATTTTCAT GATTACTTCA AGAAGTTATC	2820
GCAAGATTGT GCAAATGTAA AAAAGATACC TCGACTTCAA AATCGAGGTA TTTCTGTATF	2880
TCTAAATGCT GAAAGATTGT CCGAGCAGGA AGGTAATCC CATGTCGAG AGACCAATAG	2940
CAAGGTTCCG AATCATAGCT GTTTTGGTGT GGGCTTTTCC AAGTCTAGCA CTGTGTAAAC	3000
CAGTGAGAAG AAGGGCCACA CCGACAATAA GGACGGTAGC AGGGATGCGG TAATCAGTTG	3060
GAAAAATGGT CACTGACAGC ATTGGAGGCA AACTTCTAAG GAAAAAGGCA ACGAAGCTAG	3120
AAATGGCAGC GTGCCAAGGA TTGGTAAATT CTTATATCTA AATCCATAT TTTTCTCTTA	3180
CCAGAGCCTT GAGTGGATTT TTAAGAAAAG TCTTATTGGT CAAGAGTTGG GCAGAAGTTT	3240
TGAATTCCTC ATTTTGGATA TAAGCAGCAT AGAGGGATT TTTGGCTAGT TCCCTATCTT	3300
GGTCTAGCAA GAGTTTTTCT CGCGAAACGG CAGCTTCCTC GGTATCTTTT GGAGTTGAAA	3360
CGGATACATA TTCTCCACCA GCCATTGAJA AGGCACCAGC TAAGATAGCC GTAAAACCTG	3420
ATAAAAAGAT AATCCAGATA TTGTCCTGG CACTGGCAAC TCGGATAACC ACACAGCAA	3480
TGGAAATGAT TCCATCGTTA GCATCAAGAA CACCCGACG CAGGATATTT AAACGACCTG	3540
CAAAATTTGA ATCAATTTTG TGATTTGTTT CTGACGCTAA AITTCAGTT CAAGTTAGCC	3600
ATCAAGAGAT CTCTCTGGG TGACTGTAG TCCAAGCATT TTTTAGGATA GTTGTAAATC	3660
CACTTTTCGA TGAATGGAC TTCTTTGGGA GTCATTTTCT TGGTTCCTCT AGGTAACCAT	3720
CTACGAATGA GCCTGTGTG ATTCCTATTA GTTCCCTTT CCAAGAGGC ATAGGGATGT	3780
GCATATAAAA TGTGCTCCTC AGAAAAATCA TTAGACAAGC GATTGAATTC CGTTCATTA	3840
TCTGCCGTGA TGGAAAGAT CTGTGTGTGT TTTAAGATGA GTTTTAGAGC CTGATTGACC	3900
ACATCAGCAC TTTTATTTGG AATCAATCGG ATGATCTGAT GTCTACTTTT TCGATCCGTC	3960

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AAGACAAGCA AGCAGTAGTT TTTCGCTCTC GTAAGTAGAA CTGTATCAAT CTCATAATGC	4020
CCATTTCTCCA AGCGAAAAAT GATAGCTTCA AGCCGCTGTT CGATGGATTG ACCAGCAGGT	4080
TTAAAGTTPG TGCTGGCTG TTCTTAAAGC GCTTTTCCTT TTCTAGGGTA AAGCAGATCC	4140
TGTTTGCTTA ACCCCAATTT TCCATGATGA ATCCAATAGT AAATGGTTGA AATTCGCCAG	4200
TTAACTCCCTT TAGCCATCAC CATCATTTCA GCGAAAAAT TTGTGTTATG ATAGTGGAGA	4260
ATCTTTTCCT TTAGTCTCTT GGTCAAGCTT GATTCTCTGA CCGAGCGCTT GCGATTGTTT	4320
TCATAAGACT GTTGAGCATA GTCCGCAGAA TAAACCTCTT TGAAGCGCCC TTTTCCAAGA	4380
CATTGTCCGA CTGTCCCAAG CTGATTTTCA GGTGGATAG TTTGAGGAAC TTTTCCAAGC	4440
AGAGAGGCAA TTTCTCTATT TGATTTCCCT TCTTTTTCCT ATCTTTTCGAT TAAGGACCG	4500
CTATCGATTG TCAAAATGTC GCCTTTGTGA GTATAATGGT TTTGCATCTC TGTGCCCTTC	4560
TTGTGTTTGT GGTGGAACAA CAAGTATAC ACAGAGGTGT TTTCTTATGC CTACAAGACC	4620
TATCGGCTTG TTGAACCATC TAATTTTTAG GAGGCGTGGG TGGCTAACTT CATTTAGAA	4680
CTTTCATTTA CGAACATATA GTAAATGAA ACAAGAACAG AACAAATCGA TCAGGACAGT	4740
AAAATCTATT TCTAACATG TTTTAGAAGC AGAGGTGTAC TATTTCTAGTT TCAATCTATT	4800
ATATTTTGTG TTTTATCAA AAAACTCTT ACAAGTTCTT AAAAACATGA TATAGTAATA	4860
AAGCTTAGAA AATGAGATGA TGTTTCTAG CAAATATAAA CCGAGTAAA AATGCCTAC	4920
GGACAGGCGAG GGTGATGC CGAAGCGTGG TTGAAAAGCC ACATTATTGA TAGGTTAAA	4980
AGCCTACTTT TATAGATTGA TGTTAGGACA CTGTCTCTAA TTCATAAATT TTTAGTGTGG	5040
TGAAAGCACA CGTCACTTGG TGAACGATC AATAAGTAC GTAATATTGG CTACTAGAGA	5100
GTTAGGAAC ATCGGGAACA GACATACTCA ACAGAAACCA AATAAACAC GTCAGAAGAT	5160
TGCAGAGCAG GTGAAAACCT GCTCTTTTTT CATGAGTCAA CCTTTAGTTC CTTAGTTTTT	5220
ATAAGTCTCT AAAAATATTG AAAGGAGTAT GTTTGGAAG AGTTAGATCA AAACCAAGCC	5280
CCAACTTATG AGGCTTGGT GAAGTTACGC AAGAAAAGGA TTGTTCCCTT TGATGTTCCA	5340
GGTCACAAGC GTGACGGGG AAATCCAGAA CTGTCTGAAC TCTTAGGAGA AAAATGTGTA	5400
GGCATTTGATG TCAATTCGAT GAAACCTTGG GATAATTAG GCCATCCTAT TTCGATTATT	5460
CGTGATGCG AGGAGCTGGC TGCAGATGCT TTTGGAGCTA GCCATGCCCT TCTAATGAAT	5520
GGTGAACAA CTTCACTGGT GCAGACTATG ATTCTGGCAA CCTCGAAGC AGGAGATAAG	5580
ATTATTCTGC CACGAAATGT CCATAAATCT GCTATCAATG CGTTGGTCTT ATGTGGTGCC	5640
ATTCCCATCT ATATCGAGAT GAGTGTAGAT CCTAAGATTG GTATCGCTTT AGTCTTGA	5700
AATCACCGAG TAGCACAGGC CATTAAGGAC CATCCAGATG CTAAGSCTAT CCTAATCAAC	5760

AATCCTACTT ACTACGGCAT CTGTTACAGC CTAAGGGGCT TGACAGAAAT GGCTCATGAA 5820

GCTGGCATGA TGGTTTTAGT AGATGAAGCC CACGGAGCGC ATTTGCATTT CACTGATAAA 5880

CTTCCAATTT CTGCTATGGA TGCAGGGGCT GATATGGCAG CAGTTTCCAT GCATAAGTCT 5940

GTTGGGAGTT TGACCCAAAG CTCCATTTTA CTTATCGGG AGCAGATGAA TTCTGAATAC 6000

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TTGGATATTT CACGTCGCAA CTGGCCCTT CTTGGTAAAG AGTCGTTTGA GAAAGTCATT 6120

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AAGTGAGTGG TTTAAGAACA GTTTTCCCTG GAACATTCAA GGCTGTAACA TCGTGTTTAT 7380

TTTTAGCGAC ATCAATGCCC ACNTAAAGCA TGGGAGTATC TCCAGATATA GTATTTCAAG 7440

TCTACTGGGT TATCCACGAA CTTTTCGCTT TGTACTCTTA GACGAGATAA ACGTCTATG 7500